



DORSET COUNCIL

WEYMOUTH HARBOUR PILOTAGE REVIEW 2021



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**International Harbour
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MARINE AND RISK CONSULTANTS LTD

DORSET COUNCIL

WEYMOUTH HARBOUR PILOTAGE REVIEW 2021

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EXECUTIVE SUMMARY

Dorset Council (Weymouth Harbour) has contracted Marine and Risk Consultants Limited (Marico Marine) to review the pilotage provisions of the Weymouth Competent Harbour Authority.

Marico Marine previously carried out a similar review in late 2014 (Marico Marine Project 14UK1044).

Since 2014 there have been a number of significant changes at Weymouth, including a change in trade and facilities within the Harbour, a new Council / Duty Holder, modernisation of legislation (HRO) and a change in personnel, all of which have been reflected in the updated and continuously reviewed navigation risk assessments and MSMS for the harbour.

This review includes:

- A full review of the 2014 assessment report including factual updates;
- A rescoring of the 2014 Risk Assessments for the current situation to confirm (or otherwise) the ongoing need for pilotage as a risk mitigation; and
- Identification of new and / or updated recommendations with respect to pilotage provision.

The review particularly notes the significant reduction in commercial traffic visiting Weymouth, both currently and anticipated in the future, and the difficulties this presents in maintaining a Pilotage service.

Changes to legislation are also noted, especially the Marine Navigation Act of 2013, which makes the review of pilotage provision simpler, and the modern legislation now available to Weymouth following the enactment of the Weymouth HRO in 2021.

The quantitative assessment of those hazards to navigation within the Weymouth Harbour CHA Area which could be realistically mitigated through the provision of pilotage as a control measure demonstrates that:

- The baseline level of risk without Pilotage is Low; and
- Pilotage only reduces the risk very slightly, still within the Low-risk band.

This report therefore recommends that consideration should be given to the removal of the pilotage service as this would not have an unacceptable impact upon the level of navigational risk within the CHA area.

Taking into account the current and expected future traffic profile of Weymouth Harbour, and the result of the formal navigation risk assessment, the following recommendations are made to Weymouth Harbour:

1. Commence the process of removing the Harbour Authority's Pilotage functions, as provided for under The Marine Navigation Act 2013.
2. Before the Pilotage service is removed, fully review and, if possible, enhance relevant existing control measures, in particular:
 - a. Make use of the 2021 HRO to issue General Directions which will become enforceable as soon as pilotage ceases.
 - b. Review the Harbour's LPS provision.
3. Ongoing: through routine navigation risk assessment review, keep the need for pilotage (and all other risk mitigations) under consideration, and should the traffic profile of the harbour change, be prepared to re-introduce Pilotage or alternative risk controls in the future.

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1 INTRODUCTION

Dorset Council (Weymouth Harbour) has contracted Marine and Risk Consultants Limited (Marico Marine) to review the pilotage provisions of the Weymouth Competent Harbour Authority.

Marico Marine previously carried out a similar review in late 2014 (Marico Marine Project 14UK1044).

Since 2014 there have been a number of significant changes at Weymouth, including a change in trade and facilities within the Harbour, a new Council / Duty Holder, modernisation of legislation (HRO) and a change in personnel, all of which have been reflected in the updated and continuously reviewed navigation risk assessments and MSMS for the harbour.

However, much of the previous Marico review remains relevant, and this document represents an update to the 2014 report, rather than a complete review from first principles.

The review therefore comprises:

- A full review of the 2014 assessment report including factual updates;
- A rescore of the 2014 Risk Assessments for the current situation to confirm (or otherwise) the ongoing need for pilotage as a risk mitigation; and
- Identification of new and / or updated recommendations with respect to pilotage provision.

1.1 BACKGROUND

Weymouth Harbour remains a Competent Harbour Authority under the Pilotage Act 1987, and issues Directions requiring certain classes of vessels to embark pilots authorised by the Authority when navigating within the Harbour area.

However, there has been no significant demand for pilotage since the last Channel Island ferry service relocated to Poole in 2015, and for several years prior to that the majority of pilotage acts had been undertaken by vessel masters duly assessed and authorised to carry out their own acts of pilotage under the arrangements (detailed in the Pilotage Directions) for issuing Pilotage Exemption Certificates (PECs).

Other than occasional, and increasingly less frequent, ship visits such as by the paddle steamer Waverley in the summer months, small naval vessels requiring overnight stays and a small number of sail training vessels, there has been little demand for pilotage in recent years.

Weymouth Harbour does not currently employ any authorised pilots and relies on two individuals to provide the service when required. Although both individuals are currently authorised, the mechanism to authorise new pilots, and to ensure existing pilots remain competent, is becoming increasingly difficult. This is due to loss of knowledge within the Authority, and a lack of visiting vessels to provide the experience required to maintain familiarity within the district, and to provide training opportunities for any new pilots.

1.2 GUIDANCE

The following documents were used as guidance for this review.

Weymouth HRO 2021;
Weymouth Byelaws 1976 (as amended);
Weymouth Pilotage Directions 2020;
Pilot Boat Services Agreement (April 2021);
Operations Plan and Safety Management System (Weymouth Harbour February 2021);
Admiralty Charts 2172 and 2255;
Admiralty List of Radio Signals Volume VI;
Admiralty Sailing Directions NP 27 – Channel Pilot;
Pilotage Act 1987;
The Marine Navigation Act 2013 (amendments to Pilotage Act);
Port Marine Safety Code (November 2016); and
A Guide to Good Practice on Port Marine Operations (February 2018).

2 WEYMOUTH HARBOUR OVERVIEW

Weymouth is situated around the mouth of the River Wey in Dorset, facing into Weymouth Bay and the English Channel in Lat. 50° 36.6'N, Long. 002° 26.5'W. There has been continuous port activity since Roman times. The modern harbour is divided into inner and outer parts, separated by the Town Bridge of bascule lifting type. Commercial activity is concentrated in the outer harbour and especially close to the harbour mouth. Apart from some charter boat activity, the inner harbour is entirely given over to three large marinas.

2.1 STATUTORY HARBOUR AUTHORITY

Statutory Harbour Authority (SHA) limits were redefined in The Weymouth Harbour Revision Order 2021:

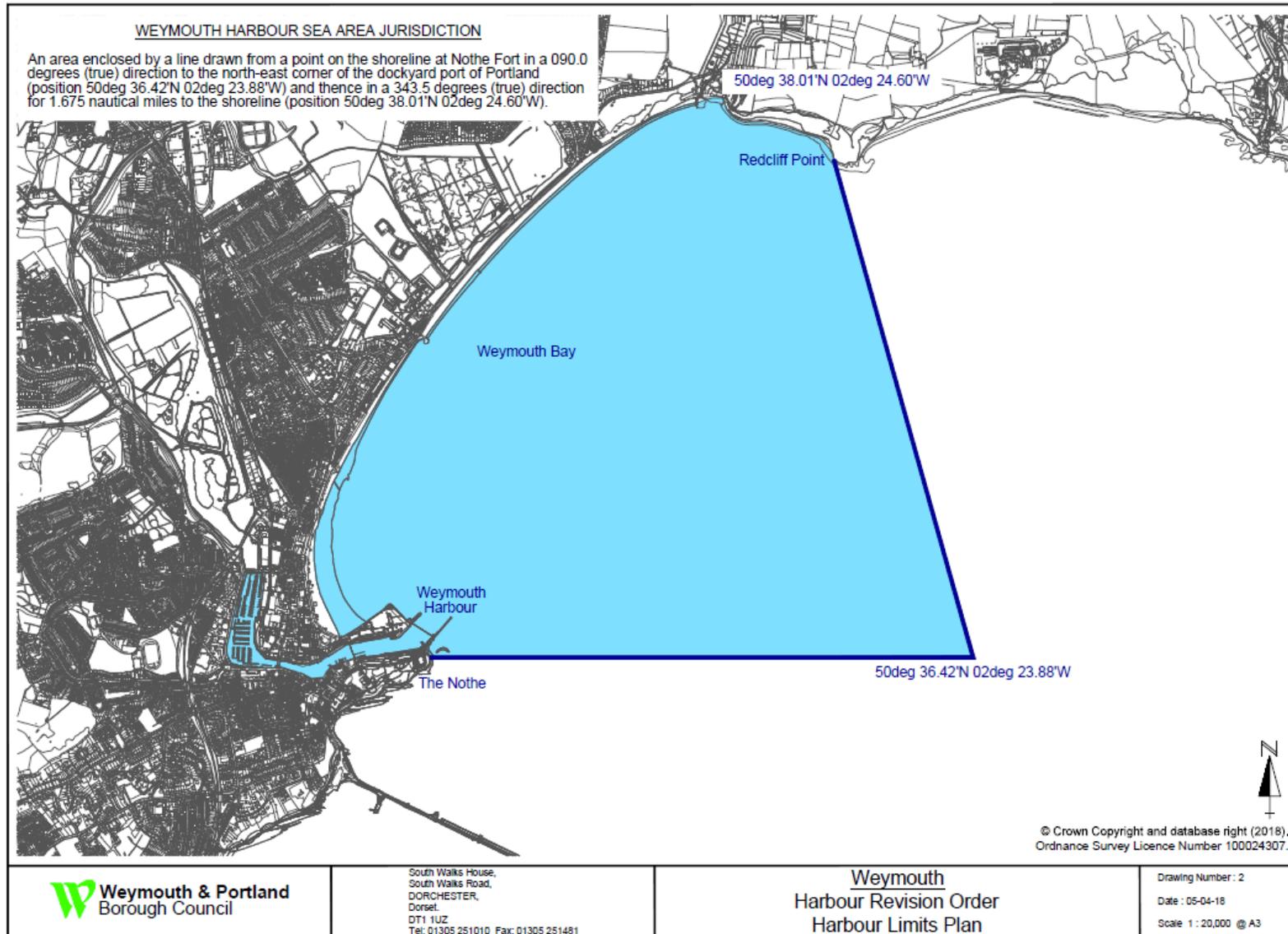
“The limits of the harbour within which the Council shall exercise jurisdiction as a harbour authority and the powers of the Harbour Master may be exercised shall comprise:

(a) the area below the level of high water included within a line drawn from a point on the shoreline at Nothe Fort (position 50° 36.42'N, 02° 26.6'W) in a 090.0 degrees (true) direction to the north-east corner of the dockyard port of Portland (position 50° 36.42'N, 02°23 .88'W) and thence in a 343.5 degrees (true) direction for 1.675 nautical miles to the shoreline (position 50°38.01'N, 02°24.60'W); and then following the level of high water around the coast of Weymouth Bay and up the River Wey as far as Westham Embankment (position 50° 36.71 'N, 02° 27.39'W) (beneath Westham Bridge) (but not including Westham Bridge) and then in a straight line across Westham Embankment to the opposite bank of the River Wey (position 50° 36.71 'N, 02° 27.49'W) and then following the level of high water down the River Wey and around the coast to a point on the shoreline at Nothe Fort (position 50° 36.42'N, 02° 26.6'W); such area shown shaded blue on the harbour limits plan; and

(b) The extent of those parts of the harbour premises not within sub-paragraph (a).”

See **Figure 1**, below.

Figure 1: Harbour Limits Plan



2.2 COMPETENT HARBOUR AUTHORITY

The Pilotage District is defined as the area to the west of a line joining Grove Point (Portland), latitude 50°32.922'N, longitude 002°24.867'W, and White Nothe, latitude 50°37.450'N, longitude 002°19.317'W, and defined within the Pilotage Act 1913, as determined by Harbour Revision Order but excluding Portland Inner and Outer Harbour.

The area within the line described above, not covered by Weymouth or Portland Harbours is a joint pilotage area between Portland Harbour Authority and Weymouth Harbour Authority. Pilotage for all vessels proceeding west of a line joining Grove Point (Portland) and White Nothe (coordinates as above) but remaining outside the limits of Portland Harbour Authority and the Port of Weymouth will depend on local conditions and activity.

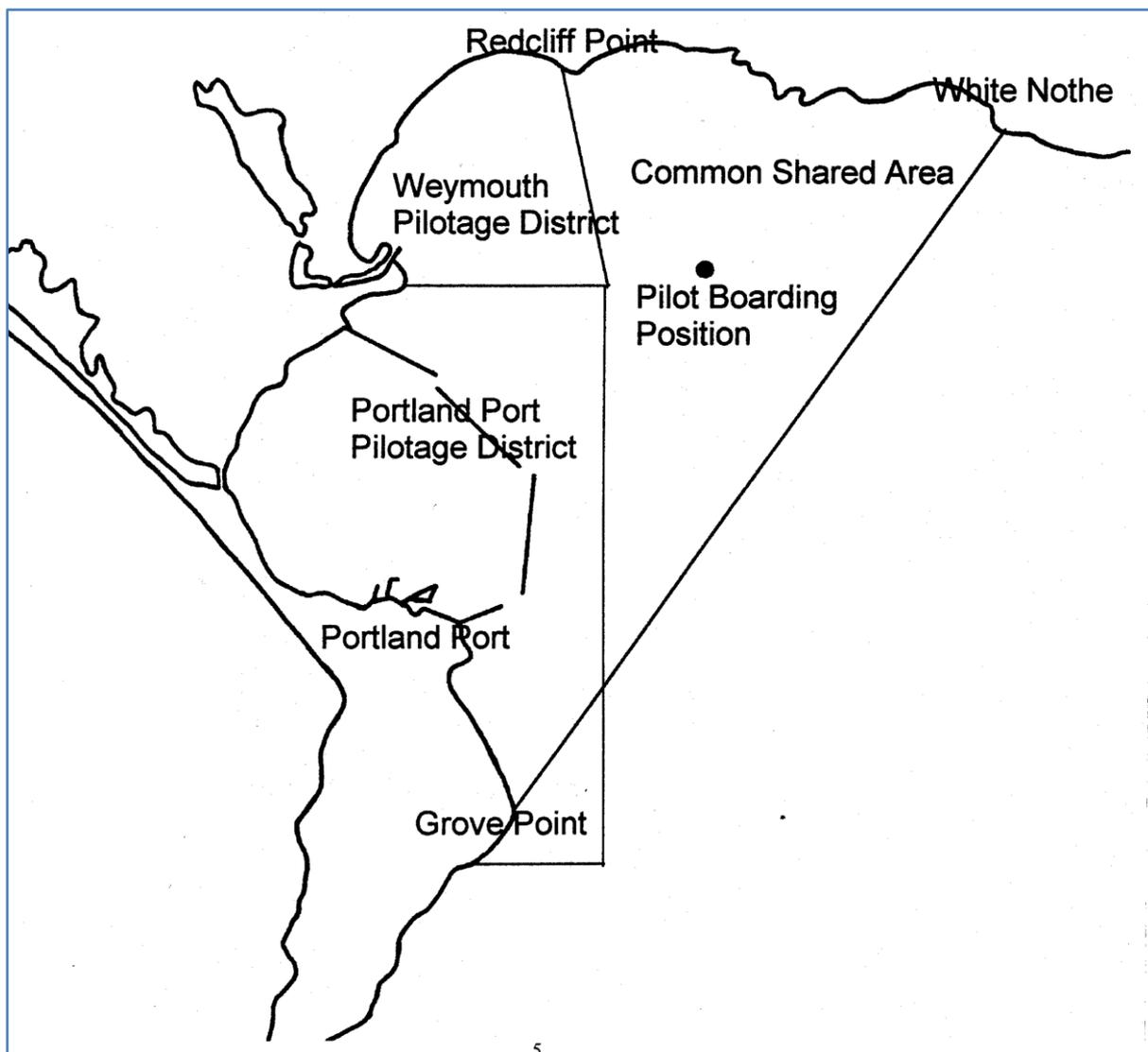


Figure 2: Pilotage District

Pilotage is compulsory for all vessels except:

- (a) HM Naval Ships;
- (b) Naval Vessels of Foreign and Commonwealth Countries; and
- (c) All vessels less than 50m length overall (LOA) except:
 - (i) Passenger vessels with more than 12 passengers, other than regular ferries and passenger vessels plying solely within the pilotage district approved by the CHA;
 - (ii) All vessels carrying 'Dangerous Goods' as defined in The Dangerous Substances in Harbour Areas Regulations 1987 (Clause 3) with an LOA greater than 36.6m, other than Naval vessels as per (a)(b) & (c) above; and
- (d) All vessels and boats licensed under the Public Health Acts Amendment Act 1907.

As noted in **Section 1.1**, very few vessels exceed 50m in length, or carry passengers except for those plying solely within the pilotage district, so almost all vessels using the harbour are exempt from pilotage under the above exceptions.

2.3 BERTHS

There are a total of three commercial berths on the north side of the harbour.

Berth	Length	Depth
1	100m	4.5m
2	25m	3.8m
3	65m	4.0m

Table 1: Commercial Berths Parameters

The area of the harbour where these berths are situated (The Peninsula) is currently (2021) undergoing redevelopment to provide common user general cargo berth facilities. The former passenger terminal, linkspan and associated facilities have been removed.

All other berths are predominantly for leisure and small commercial (including fishing) vessel use and would not be used by piloted vessels.

2.4 INNER HARBOUR

Town Bridge (opened every 2 hours during daylight hours), with a passage through of 24.4m wide, spans the harbour 5 cables within the entrance and leads to the Inner Harbour (Backwater); a large

pool in which Weymouth Marina and Weymouth Harbour Marinas (North Quay and Westway Road) are situated. The bridge is beyond the commercial berths which would be used by vessels subject to pilotage.

2.5 TOWAGE

Towage is not routinely available or provided. Any towage operations must be authorised in advance by the Harbour Master.

A commercial towage provider, Griffin Towage has 4 standard tugs and one 10m tug Rhib based in the harbour, but do not provide routine harbour towage.

2.6 COMMERCIAL TRAFFIC

There are no regular commercial services running from the harbour (2021), although the commercial berths are used by fishing vessels, and for some long-term berthing (including non-harbour tugs).

Occasional visitors include vessels seeking layup, tall ships (training vessels) and historic coastal cruise vessels (e.g. PS Waverley). Demand for pilotage is consequently low.

Currently (2021) there is no expectation of a revival in commercial trade requiring pilotage, and indeed the redevelopment of the Peninsula site has reduced the opportunities for further expansion of large commercial vessel movements.

3 LEGISLATIVE REVIEW

This section details relevant national and local legislation relevant to this review as listed below:

3.1 NATIONAL LEGISLATION

There is a wide variety of legislation relevant to harbour operations, which is listed elsewhere (See the Port Marine Safety Code and associated Guide to Good Practice, for example) (Sections 3.3.1 and 3.3.2 refer). The legislation briefly described below is most relevant to the provision of a Pilotage service by a Competent harbour Authority.

3.1.1 Harbour Docks & Pier Clauses Act 1847

Relevant sections of the Harbour Docks & Pier Clauses Act are detailed below:

3.1.1.1 Section 52 (extract)

“The Harbour Master may give Directions for all or any of the following purposes:

- *For regulating the time at which and the manner in which any vessel shall enter into, go out of, or lie in or at the harbour, dock or pier, and within the prescribed limits, if any, and its position, mooring or unmooring, placing and removing, whilst therein;*
- *For regulating the position in which any vessel shall take in or discharge its cargo or any part thereof, or shall take in or land its passengers, or shall take in or deliver Ballast within or on the harbour dock or pier;*
- *For regulating the manner in which any vessel entering the harbour or dock or coming to the Pier shall be dismantled as well for the safety of such vessel as for preventing Injury to other vessels and to harbour, dock, or pier, and the moorings thereof;*
- *For removing unserviceable vessels and other obstructions from the harbour, dock, or pier, and keeping the same clear; and*
- *For regulating the quantity of ballast, or dead weight in the hold which each vessel in or at the harbour, dock, or pier shall have during the delivery of her cargo or having discharged the same.”*

3.1.2 The Pilotage Act 1987

The Pilotage Act 1987 is an Act of Parliament that governs the operation of marine pilotage. The Act requires the CHA to keep under consideration what pilotage services are needed to secure the safety of ships and gives them powers to:

- Make pilotage compulsory within their pilotage district and levy charges for the use of a pilot;
- Grant PECs, to any bona fide deck officer of a ship, including its master or first mate, may hold one provided the relevant competent harbour authority is satisfied that that person has the skill, experience and local knowledge, and sufficient knowledge of English for safety purposes, to be capable of piloting one or more specified ships within its harbour; and
- Authorise pilots within their district.

The CHA has a duty to keep under regular review the need for and implementation of Pilotage in the area for which it has responsibility. It has to set the level of Pilotage required, develop and promulgate Pilotage Directions, and satisfy itself that prospective Pilots for authorisation meet the required standards that it has determined, in respect of age, physical fitness, time of service, local knowledge, skill, and character.

With relevance to this study, Section 2(1) and 2(2) of the Act requires the CHA to keep under consideration whether:

- Any and, if so, what pilotage services need to be provided to secure the safety of ships navigating in or in the approaches to its harbour; and
- In the interests of safety, pilotage should be compulsory for ships navigating in any part of that harbour or its approaches. If so, for which ships under which circumstances and what pilotage services need to be provided for those ships.

3.1.2.1 Review of Pilotage Act 1987

In 1997 following the *Sea Empress* disaster in 1996, the Department for Environment, Transport and the Regions undertook a review of the Act which concluded that "*Pilotage should rightly remain the responsibility of the CHAs and become integrated with other port marine activity under the management and responsibility of one Statutory Authority*". The principal recommendation of the Review was for the establishment of the Port Marine Safety Code (see **Section 3.3.1**).

3.1.3 The Marine Navigation Act 2013

The Marine Navigation Act 2013 amends legislation relating to pilotage, harbour authorities, the general lighthouse authorities and the manning of ships. With regards to pilotage the Act has addressed the problems as outlined below:

3.1.3.1 Clause 1: Power to remove harbour authorities' pilotage functions

Clause 1 amends the Pilotage Act 1987 to provide the appropriate national authority with power to specify by order that a harbour authority in England, Wales or Scotland is not a CHA within the meaning of that Act. Making such an order in respect of a CHA will mean it is no longer required to carry out certain duties set out in the Pilotage Act. The relevant duties include keeping under review whether any, and, if so, what pilotage services need to be provided for the safety of ships in its harbour or its approaches and whether pilotage should be compulsory. The appropriate national authority in this context is the Secretary of State as regards harbours in England and Wales and the Scottish Ministers as regards harbours in Scotland. In England and Wales, the order making power is subject to the applicable negative resolution scrutiny procedure.

3.1.3.2 Clause 2: Pilotage Exemption Certificates: grant

Clause 2 amends the Pilotage Act 1987 to remove the restriction whereby only the master or first mate of a ship may hold a pilotage exemption certificate. Any bona fide deck officer of a ship, including its master or first mate, may hold one provided the relevant CHA is satisfied that that person has the skill, experience and local knowledge, and sufficient knowledge of English for safety purposes, to be capable of piloting one or more specified ships within its harbour.

3.1.3.3 Clause 3: Pilotage Exemption Certificates: suspension and revocation

Clause 3 extends the circumstances in which a CHA can, by written notice, suspend or revoke a PEC. The authority may do this if:

- An event occurs that gives it reason to believe that the holder of the certificate no longer meets the requirements for holding a certificate;
- It thinks that the holder of the certificate has provided false information; and
- It thinks that the holder of the certificate has been guilty of professional misconduct while piloting the ship; or the certificate has been misused in circumstances where an act of pilotage is undertaken by an unauthorised person.

3.1.3.4 Clause 4: Pilotage notification

Clause 4 amends the Pilotage Act 1987 by substituting a new section 15(3) which makes it an offence by the master of a ship not to give a pilotage notification before the ship is navigated in an area for which a pilotage direction is in force. That notification must either request an authorised pilot or

notify the authority that the ship will be piloted by a specified person in accordance with a pilotage exemption certificate.

3.2 LOCAL LEGISLATION

3.2.1 Harbour Legislation

Weymouth Harbour benefits from very modern legislation which has been enacted since the newly formed Dorset Council became the Statutory Harbour Authority.

The Weymouth Harbour Revision Order 2021 came into force on 17 February 2021 and consolidates all previous Acts, Revision Orders and other local legislation.

The 2021 HRO specifically retains relevant provisions of Harbour, Docks and Piers Clauses Act 1847, gives the power to make general directions and incorporates a modern definition of “Vessel” which is retrospectively applied to the provisions of the HDPC Act.

In terms of PMSC compliance, the harbour has fully reviewed relevant legislation, which is fit for purpose.

The HRO does not however contain any specific legislation relating to pilotage.

3.2.2 Weymouth Harbour Byelaws

The 2021 HRO has a specific provision (45) “Saving for existing Byelaws etc.” confirming that Byelaws made before the HRO came into effect remain extant. Therefore, the most recently issued Byelaws are still in force.

The current Weymouth Harbour Byelaws came into force in 1976 (with a minor amendment in 1994) and cover both waterborne and shoreside activities. They are therefore dated and contain many regulations relevant to the now absent commercial traffic which formerly used the port.

However, they remain relevant until such time as they can be superseded by General Directions made under the 2021 HRO.

The Byelaws do not directly regulate pilotage.

3.2.3 Weymouth Pilotage District – Pilotage Directions and Regulations

Dorset Council, as successor to the Weymouth & Portland Borough Council is a Competent Harbour Authority (CHA) established through the Weymouth & Portland (Pilotage) Harbour Revision Order

1988. The Pilotage Directions apply to vessels navigating in the CHA have been revised periodically and the currently applicable directions were issued in January 2020. (**Annex A**)

The Pilotage Directions are divided into several schedules as follows:

- Schedule 1 - Application
- Schedule 2 - Geographical limits of Pilotage District
- Schedule 3 - Additional Information
- Schedule 4 - Pilotage Fees and Charges
- Schedule 5 - Standards and Criteria required for the issue of Pilotage Exemption Certificates and Pilotage Licences
- Pilot Information Form

3.3 GUIDES AND CODES OF PRACTICE

There are two principal documents guiding the UK ports industry's compliance with legislation and good practice.

3.3.1 Port Marine Safety Code

The Port Marine Safety Code (the Code) applies to all harbour authorities in the UK that have statutory powers and duties. The Code is primarily intended for "the duty holder" who is directly accountable for the safety of marine operations in their waters and approaches.

The current version of the PMSC is dated November 2016.

The Code establishes a national standard for every aspect of port marine safety and aims to enhance safety for those who use or work in ports, their ships, passengers and the environment.

It was developed following the grounding of the *MV Sea Empress* and a review of the arrangements for harbour pilotage under the Pilotage Act 1987 (see **Section 3.1.2**).

The Code applies the well-established principles of risk assessment and safety management systems to port marine operations. Ports and harbours are required to produce a Safety Management System (SMS) based on the ALARP ("as low as reasonably practicable") principle - that is managing marine operations in harbours to reduce risk "as low as reasonably practicable".

The Code embraces some fundamental principles.

- The promotion of nationally agreed standards;

- Recognising that best practice is built on experience and is therefore evolutionary; and
- Focus upon those risks affecting the safety of life, property and the environment.

3.3.1.1 The Port Marine Safety Code and Pilotage

With regards to pilotage the Code states the following:

Pilotage and Pilotage Directions

4.11 Under the Pilotage Act 1987, a Competent Harbour Authority (“CHA”) has a duty to assess what, if any, pilotage services are required to secure the safety of ships, and to provide such services as it has deemed necessary³¹. CHAs should determine these matters through risk assessment.

4.12 CHAs must issue pilotage directions if they decide, based on their assessment of the risks, that pilotage should be made compulsory. The pilotage directions must specify to which ships they apply and the area and circumstances in which they apply.

Authorisation of Pilots

4.13 A CHA may authorise suitably qualified pilots in its area. Authorisations may relate to ships of a particular description and to particular parts of the harbour. The CHA determines the qualifications for authorisation in respect of medical fitness standards, time of service, local knowledge, skill, character and otherwise. Qualifications of EEA State nationals must be recognised. The CHA may also – after giving notice and allowing a reasonable opportunity to make representations – suspend or revoke an authorisation in certain circumstances.

4.14 CHAs are encouraged to implement the international recommendations on the training and certification and operational procedures for pilots contained within International Maritime Organisation resolution A960.

Pilotage Exemption Certificates.

4.15 CHAs must grant a ‘Pilotage Exemption Certificate’ (“PEC”) to a ship’s deck officer (including the Master who applies for one if they demonstrate they have sufficient skill, experience and local knowledge to pilot the ship within the compulsory pilotage area.

The requirements for granting a PEC must not exceed or be more onerous than those needed for an authorised pilot.

4.16 A CHA may suspend or revoke a PEC if it ceases to be satisfied that the holder possesses the required skill, experience and local knowledge, or in cases of professional misconduct or the provision of false information.

3.3.2 A Guide to Good Practice on Port Marine Operations February 2018

This document is a supplement to the Code. It contains more detailed guidance on issues relevant to harbour authorities including pilotage. It is designed to provide general guidance and examples of how a harbour authority can meet its commitments in terms of compliance with the Code. The guidance applies to all harbour authorities in the UK that have statutory powers and duties.

Section 9 of the guide gives detailed guidance on the interpretation of the Code with respect to pilotage according to the following general principles:

- A. *Harbour authorities are accountable for the duty to provide a pilotage service; and for keeping the need for pilotage and the service provided under constant and formal review.*
- B. *Harbour authorities should therefore exercise control over the provision of the service, including the use of pilotage directions, and the recruitment, authorisation, examination, employment status, and training of pilots.*
- C. *Pilotage should be fully integrated with other port safety services under harbour authority control.*
- D. *Authorised pilots are accountable to their authorising authority for the use they make of their authorisations: harbour authorities should have contracts with authorised pilots, regulating the conditions under which they work – including procedures for resolving disputes.*

3.4 VESSEL TRAFFIC SERVICES – LOCAL PORT SERVICE

Vessel Traffic Service (VTS) is a service implemented by a Harbour Authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.

Not all harbours require a full VTS service, and Harbour Authorities should determine through a process of risk assessment what level (if any) of traffic management service should be provided within their geographic area of responsibility.

In respect of Vessel Traffic Services (VTS) Weymouth Harbour has elected to provide a Local Port Service (LPS) as stated in Admiralty List of Radio Signals Volume 6.

LPS is described in *IALA VTS Manual Ed. Section 0504* as being:

“An organisation ashore that only provides information to the bridge team and does not interact with traffic. LPS is designed to improve port safety and co-ordination of port services by dissemination of port information with vessels and berth or terminal operators. It is mainly concerned with the management of the port, by the supply of information on berth and port conditions. LPS is not an authorised VTS. It is not required to have the ability and/or the resources to respond to developing traffic situations, nor is there a specific requirement for a traffic image”.

In terms of Pilotage, and LPS service would be limited to providing information to Pilots but would not be able to provide any form of navigational advice or assistance. This has been confirmed as appropriate through risk assessment.

4 REQUIREMENTS OF PROVIDING A PILOTAGE SERVICE

The Competent Harbour Authority (CHA) should provide the pilotage services it considers to be needed. This duty is not discharged simply by authorising one or more pilots: it includes the management of the service, ensuring that the person assigned as pilot to every vessel taking one is fit and appropriately qualified for that task.

The 1987 Pilotage Act requires that the pilotage service provided by any CHA should be based upon a continuing process of risk assessment. Operating a pilotage service will involve consideration of the following factors:

- Safety assessment;
- Agents and joint arrangements;
- Pilotage directions;
- Boarding and landing arrangements;
- Consultation;
- Pilotage regulations;
- Authorisation of pilots;
- Contracts with authorised pilots;
- Training;
- Rostering pilots; and
- Incident and disciplinary procedures.

4.1 SAFETY ASSESSMENT

Section 2(1) and 2(2) of the Pilotage Act requires CHAs to keep under consideration whether:

- Any and, if so, what pilotage services need to be provided to secure the safety of ships navigating in or in the approaches to its harbour; and
- In the interests of safety, pilotage should be compulsory for ships navigating in any part of that harbour or its approaches. If so, for which ships under which circumstances and what pilotage services need to be provided for those ships.

The hazards involved in the carriage of dangerous goods, pollutants or harmful substances by ship have to be particularly considered and are best addressed as part of an authority's overall risk assessment and safety management system.

An authority with the powers to provide an effective and efficient pilotage service must be satisfied that it can do so competently. This means firstly, that the authority has the competence to assess and

oversee authorised pilots, and those who may apply for pilotage exemption certificates; and secondly, that they will have sufficient pilotage work to maintain their skills adequately.

An authority which identifies the need to provide a pilotage service, incurs an obligation to find and maintain the resources and expertise.

4.2 PILOTAGE DIRECTIONS

Pilotage directions should specify how and to which vessels they apply, and in what circumstances. It may be that pilotage is appropriate for a class of vessels in some circumstances and not others.

4.2.1 Waiving Directions

There is no provision for pilotage directions, once given, to be waived or not applied - other than by the making of new directions by the authority, or by formally removing the harbour authorities' pilotage functions (see **section 3.1.3.1**)

4.3 AGENTS AND JOINT ARRANGEMENTS

The Pilotage Act provides for a CHA to use an agent for pilotage services, and for formal joint arrangements between CHAs for the discharge of pilotage functions.

There are important limitations to the power to make such arrangements, and key functions must be retained by each CHA. It is especially important to have a robust agreement about the resourcing of any operations conducted jointly or through another undertaking.

Any delegation or joint arrangement should be subject to a formal contract with any other body used in this way (including another harbour authority) which fully recognises statutory obligations which cannot be delegated or shared. The contract should set out the decisions which the delegated or joint body may make, and any conditions to which this is to be made subject. There should be provision in such a contract to terminate the arrangement at any time in order to enable an authority to carry out delegated or joint functions itself, or to make some other permissible arrangement instead.

5 CURRENT OPTIONS FOR PROVIDING A PILOTAGE SERVICE

5.1 CHALLENGES

As described in the introduction (**Section 1**) to this report, Weymouth currently provides a Pilotage service to fulfil its responsibilities as a CHA.

However, this is providing several operational challenges to the Authority:

- Commercial traffic levels have fallen to such an extent that the requirement for vessels to take pilots has become extremely infrequent;
- It is not economically feasible to employ even one full time pilot, so the Authority is reliant on contracted personnel who require considerable notice periods to ensure availability;
- It is not economically feasible to maintain required infrastructure such as a coded pilot vessel, requiring reliance on availability of the neighbouring Portland Harbour vessels for pilot transfer;
- The numbers of vessels requiring pilots has fallen to such an extent, that it is very difficult for existing authorised Pilots to maintain the required levels of competency through undertaking a minimum required number of pilotage acts each year (section 5.3, Pilotage Directions);
- The Authority no longer employs any officers suitably qualified to train or assess new pilots or PEC applicants, and unless one of the two current authorised pilots are able to fulfil this function (noting age profile and local experience limitations), it may become impossible to authorise further Pilots without amending schedule 5 of the current Directions (Standards and Criteria Required for The Issue of Pilotage Exemption Certificates (PECS) and Pilotage Authorisations); and
- The level of pilotage actually undertaken cannot generate sufficient revenue to cover the ongoing costs incurred.

5.2 OPTIONS

The high-level options open to the Authority are:

- 1) No change to current arrangements;
- 2) Continue to provide pilotage, but update arrangements to address the challenges listed above (section 5.1); or
- 3) Cease pilotage provision.

These options are discussed below.

5.2.1 Maintain Current Pilotage Arrangements

For the reasons listed in **section 5.1** above this option is not sustainable and cannot be recommended.

5.2.2 Continue to Provide Pilotage Under New Arrangements

If Pilotage is to be continued, a fundamental review of how the service will be provided and maintained will be required. As a first stage the pilotage risk assessment requires review to establish whether pilotage is still an effective risk control for the harbour.

If Pilotage is to continue to be provided, the possible options (excluding maintaining current arrangements) are:

- Reviewing the Pilotage Directions to make the requirements for authorisation less onerous (unlikely to be acceptable, and not recommended); or
- Provide the service jointly with another authority, both for economy, and to provide greater opportunities for Pilot training and authorisation.

5.2.2.1 Joint Arrangements

The Pilotage Act provides for a CHA to use an agent for pilotage services, and for formal joint arrangements between CHAs for the discharge of pilotage functions.

There are important limitations to the power to make such arrangements, and key functions must be retained by each CHA. It is especially important to have a robust agreement about the resourcing of any operations conducted jointly or through another undertaking.

Any delegation or joint arrangement should be subject to a formal contract with any other body used in this way (including another harbour authority) which fully recognises statutory obligations which cannot be delegated or shared. The contract should set out the decisions which the delegated or joint body may make, and any conditions to which this is to be made subject. There should be provision in such a contract to terminate the arrangement at any time in order to enable an authority to carry out delegated or joint functions itself, or to make some other permissible arrangement instead.

The only feasible local CHA with which such joint arrangements could be made is Portland Harbour.

There is already a considerable co-operation between the two CHAs, with the provision of Pilot Vessel services by Portland to Weymouth formalised in an agreement dated April 2021.

However, despite the fact that one of the authorised Weymouth pilots is also a Portland Pilot, this arrangement is a private contract, and there is no joint arrangement for the discharge of pilotage functions.

Advantages of a joint arrangement may include:

- Financial economies;
- Coordinated provision of pilotage across neighbouring / overlapping pilotage districts (simplification for mariners);
- Opportunities for Pilots to gain more experience on arrange of vessels in different areas; and
- Greater resilience of the service for both parties, better pilot availability at short notice.

Disadvantages may include:

- Commercial conflicts between the two participating authorities (attracting vessels to each other's facilities);
- Unequal contributions / advantages gained from the arrangement; and
- Contractual complexities of coming to an arrangement.

Notwithstanding the above discussion, it is understood that Portland Harbour Authority are not currently minded to enter into formal discussions regarding the formation of a joint undertaking.

5.2.3 Cease Pilotage Provision

The final option is to cease Pilotage Provision completely. This is not an option to be considered lightly and can only be pursued following risk assessment.

Should risk assessment show that pilotage is no longer a significant Risk Reduction factor, the Authority would then need to instigate the legal procedures necessary to remove the harbour authorities' pilotage functions. This option became realistic as a result of the Marine Navigation Act 2013 (**Section 3.1.3**). Clause 1 of that act amends the Pilotage Act 1987 to ease the removal of a harbour authorities' pilotage functions.

However, there is a requirement for consultation and approval by the Secretary of State.

Therefore, robust evidence will be necessary to demonstrate Pilotage is no longer necessary (nor likely to be so in the foreseeable future).

The following section of this report comprises a suitable Risk Assessment of Pilotage in the Weymouth CHA area.

6 RISK ASSESSMENT

Weymouth Harbour has recognised the challenges summarised in the preceding sections of this report and the need for a risk assessment (as described above) to inform the preferred options for the future.

This section comprises an appropriate risk assessment to evaluate the need for ongoing provision of Pilotage services on the Weymouth CHA area.

The assessment is an update of the assessment undertaken in 2014 (see **Section 1 Introduction**).

The risk assessment is broken down into five stages:

- Stage 1: Hazard identification:
 - Baseline risk assessment “without pilotage”;
 - Identify generic and local risk controls; and
 - Hazard definition.
- Stage 2: Incident Frequency:
 - Review of MAIB and RNLI incident data and incident records;
 - Consultation with Weymouth Harbour Master.
- Stage 3: Pilotage effectiveness in respect of:
 - Grounding;
 - Collision; and
 - Contact.
- Stage 4: Hazard scoring:
 - Baseline assessment made in consultation with Harbour Master;
 - Review and adjustment of baseline assessment with Harbour Master.
- Stage 5: Results of Risk Reduction Assessment:
 - Comparison between baseline and residual risk scores;
 - Conclusions and recommendation.

A full methodology is contained within **Annex A**.

6.1 STAGE 1: HAZARD IDENTIFICATION

Stage 1 of the assessment assisted the hazard identification process through consultation with the Harbour Master; the responsible person for the safety of navigation within the Weymouth Pilotage district.

A “baseline” risk assessment of vessel navigating within Weymouth Harbour (CHA/SHA), with generic mitigation in place, but *not* including pilotage was drafted. There are essentially three distinct hazards which could impact on the following two vessel types (other vessel types are not subject to pilotage, and therefore not considered in this study):

- Vessel types:
 - A commercial vessel greater than 50m LOA including those carrying dangerous goods; and
 - Any vessel carrying more than 12 passengers.
- The relevant hazards for each of the above vessel types are:
 - Collision;
 - Grounding; and
 - Contact

For the purposes of this study pilotage in the Weymouth District is currently compulsory for:

- All vessels greater than 50m LOA navigating in an area to the west of a line joining Grove Point (Portland) and White Nothe but excluding Portland Inner and Outer Harbour;
- All vessels carrying over 12 passengers unless part of a regular ferry service plying within the pilotage district; and
- All vessels navigating within the designated pilotage area carrying dangerous or polluting goods as defined in the Dangerous Substances in Harbour Area Regulations with a greater than 36.6m, other than naval vessels.

6.1.1 Generic Risk Control Measures

In discussion with the Harbour Master a baseline of risk control measures within the control of the harbour authority, as identified below, was discussed and considered relevant for the assessment:

- Operations are to be planned to the extent necessary to ensure safety:
 - Updated vessel information;
 - Clear communications; and
 - Passage plans.
- Operations are to be fully compliant with legislation, guidance and best practice;
 - Register of relevant legislation/guidance maintained.
- All those involved in operations to be competent persons;
- All the necessary information is provided to undertake the movement safely:
 - Updated charts; and

- Relevant port information promulgated via Notice to Mariners, web sites and other publications.
- All equipment provided is fit for purpose:
 - Vessel to declare defects prior to arrival; and
 - Procedure in place to postpone operation pending rectification of defect.
- All necessary resources are allocated to mitigate identified risks;
- Operations are undertaken in accordance with up to date written procedures:
 - Navigation procedures and policies regularly reviewed and updated; and
 - All those tasked with undertaking the operation are familiar with current policies and procedures.
- Any exceptions to safe practice are reported:
 - Reports reviewed and procedures/risk assessments reviewed accordingly.
- Incidents and near misses are investigated:
 - Incident/near miss reporting procedure in place; and
 - Incident investigation procedure in place.
- A planned response to emergencies is available:
 - Emergency plans maintained, exercised and updated.

When scoring the hazards it was assumed that the above risk control measures, which include the provision of the Local Port Service (see **Section 3.4**) were in place.

6.1.2 Local Risk Control Measures

Local risk control measures in place that are solely attributed to Weymouth Harbour are as follows:

- Leading lights at entrance to the harbour;
- Annual hydrographic survey;
- Regular meetings held with port users’;
- Traffic signals at entrance to harbour, in use when large vessels are entering or leaving the harbour;
- Traffic control signals at Town Bridge, with a layby mooring to the east of the Town Bridge and a “waiting pool” to the west, to prevent vessels waiting in mid-stream;
- Risk assessments undertaken by organisers of large recreational events;
- Harbour patrols during high periods of activity within the harbour;
- Segregated sector areas of the main beach delegated for swimmers, jet skiers and other recreational activities; and

- RIB patrol monitoring recreational activity of the main beach during summer daylight hours.

6.1.3 Definitions

The following sections define:

- Collision;
- Grounding; and
- Contact.

6.1.3.1 Collision

Vessel collision is the structural impact between two moving vessels (including vessels not under pilotage). The main reasons attributed to collisions include:

- Officer of the watch failure to observe the COLREGs;
- Fatigue, particularly on smaller coastal vessels;
- Met ocean conditions;
- Propulsion/steering/navigation system failure;
- Non - adherence to the Company's Safety Management System; and
- A combination of inexperience and systematic failure in the shipboard organisation.

The primary mitigation measure against the hazard of vessels colliding with one another is the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS). This risk assessment, in considering measures to minimise the risk of collision in respect of navigation within Weymouth Bay and approaches to and navigating within the harbour, makes the assumption that vessels will be compliant with the COLREGS.

6.1.3.2 Grounding

Grounding is a type of marine accident that involves the impact of a vessel on the seabed, resulting in damage of the submerged part of her hull and in particular the bottom structure.

Grounding accidents can be attributed to the following scenarios as follows:

- Human error i.e. poor decision making, fatigue; inexperience;
- Failure to alter course at a given turning point near a underwater obstruction;
- Taking evasive actions near the obstruction and consequently run aground or make contact with the underwater obstruction;

- Met ocean conditions;
- Loss of propulsion through unexpected problems with the propulsion/steering system that occur in the vicinity of the underwater obstruction; and
- Dragging anchor resulting in the vessel going aground.

6.1.3.3 Contact

Contact is defined as an event wherein a vessel hits a fixed object, such as a quay wall. For such an event to happen one of two scenarios must have occurred. Either the vessel failed to detect the fixed object, or it was unable to avoid hitting and can be attributed to:

- Human error,
- Defective/mechanical failure;
- Inadequate propulsion or steering; and/or
- Adverse weather conditions.

6.2 STAGE 2: INCIDENT FREQUENCY

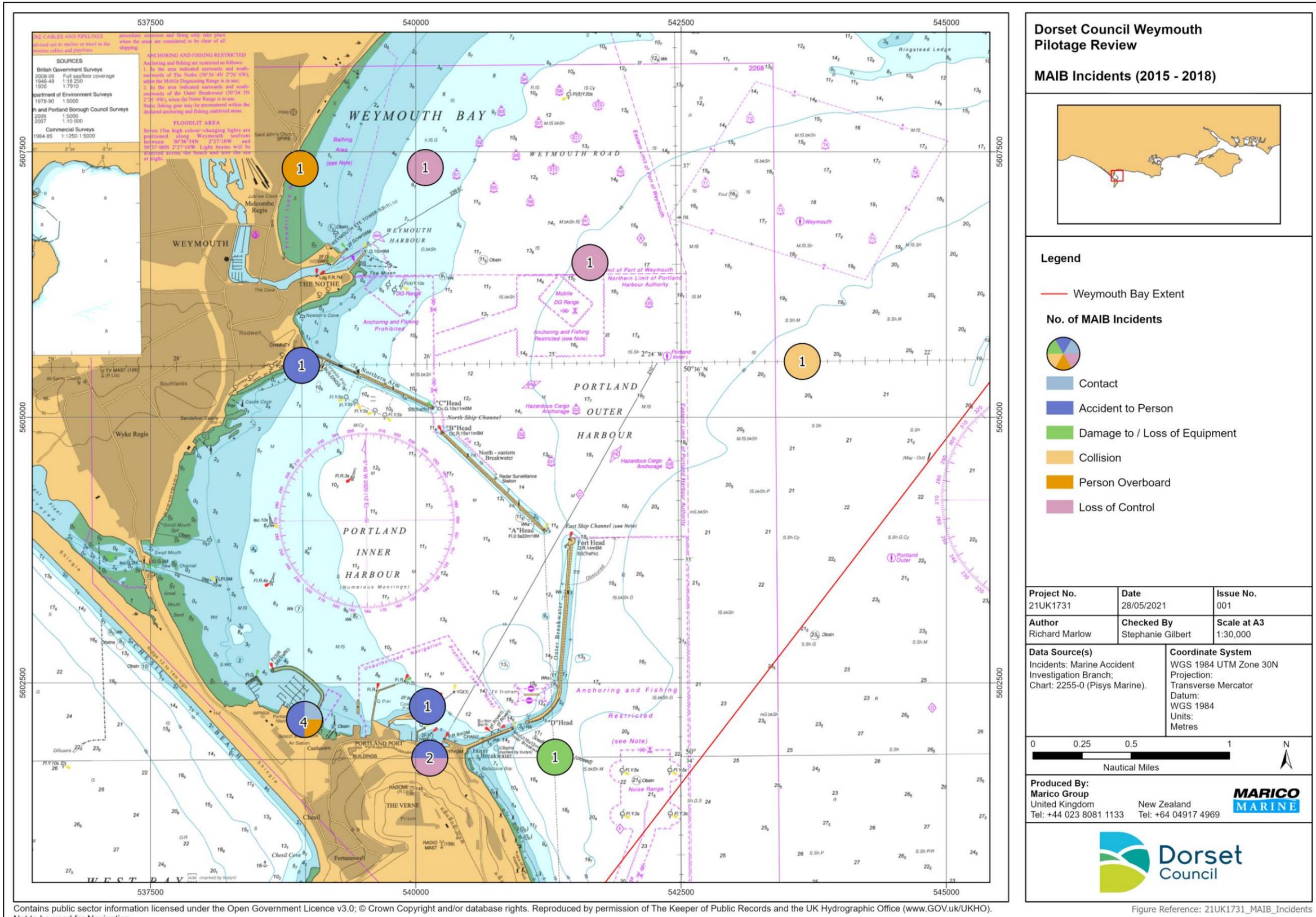
The likely frequency at which the assessed hazards might be realised in the future was assessed by means of:

- A review of MAIB incident data and incident records;
- A review of RNLI incident data and incident records;
- Application of professional judgement; and
- Consultation with Weymouth Harbour Master.

6.2.1 MAIB Incident Data and Incident Records.

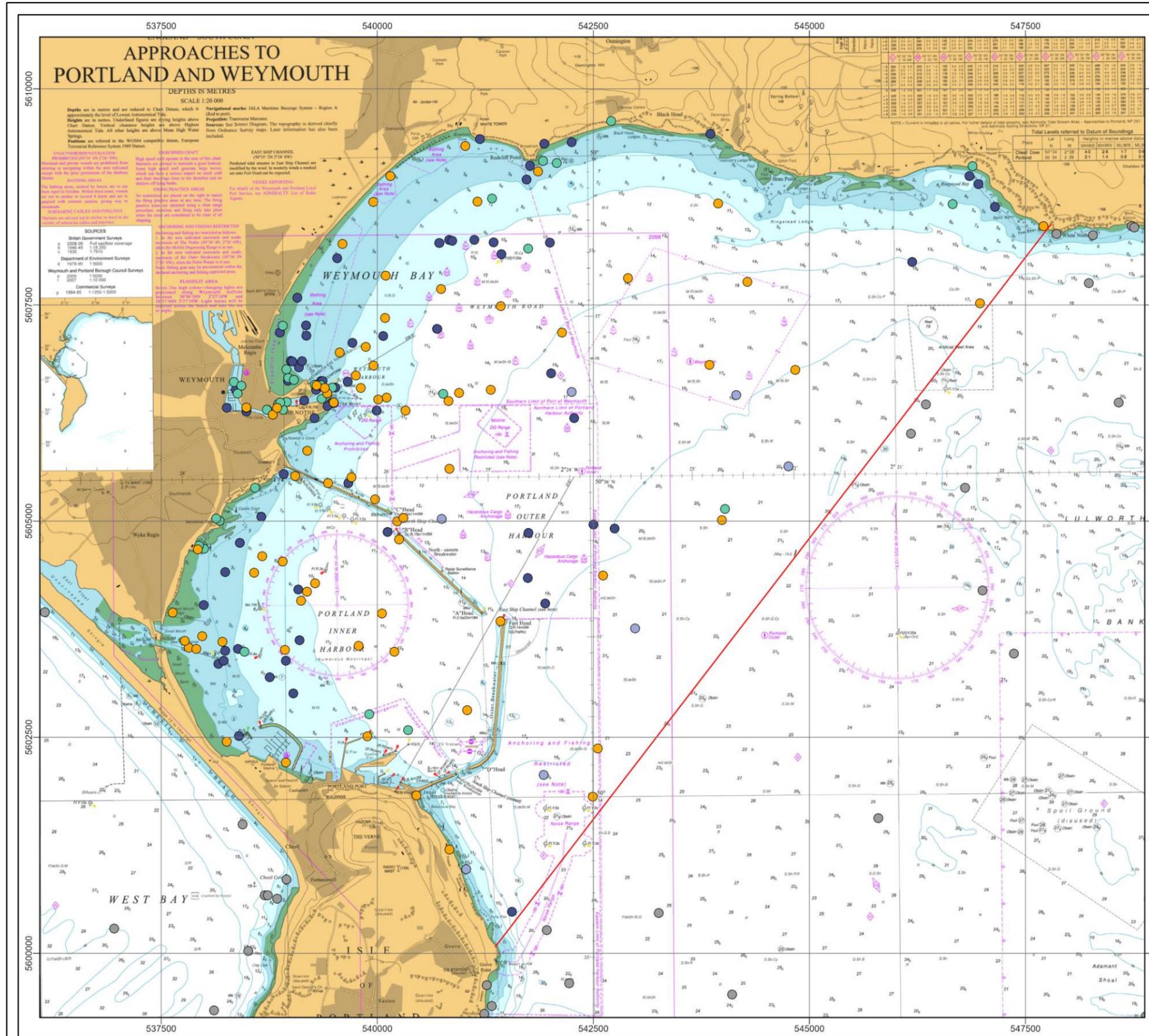
The chart on the following page (**Figure 3**) shows incidents reported to the MAIB and occurring within the Weymouth CHA taken from the MAIB database during the period 2015 – 2018 (that is to say a period comparable with current and predicted traffic levels).

There were only 4 incidents in the Weymouth area – 1 collision, two loss of control, and one person overboard.

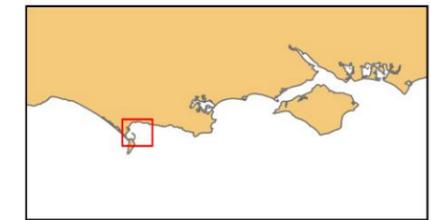


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Figure 3: Incident types in Weymouth CHA area (MAIB data 2015 -2018).



Dorset Council Weymouth Pilotage Review
RNLi Incidents (2015 - 2020)



- Legend**
- Weymouth Bay Extent
 - RNLi Incidents (Vessel Type)**
 - Commercial
 - Leisure
 - People
 - Unknown/Other
 - Incident Outside Weymouth Bay

Project No. 21UK1731	Date 28/05/2021	Issue No. 001
Author Richard Marlow	Checked By Stephanie Gilbert	Scale at A3 1:42,500
Data Source(s) Incidents: Royal National Lifeboat Institution; Chart: 2255-0 (Pisys Marine).		Coordinate System WGS 1984 UTM Zone 30N Projection: Transverse Mercator Datum: WGS 1984 Units: Metres



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Figure 4: RNLi Incidents in Weymouth CHA area by Vessel Type (RNLi data 2015 – 2020)

6.2.2 RNLI Incident Data

In addition to the MAIB data which largely records seagoing vessel incidents, data was obtained from the RNLI covering a slightly longer period (2015 – 2020, noting 2020 would have seen reduced incidents due to Covid restrictions). This data is charted on **Figure 4** on the previous page.

Although 210 callouts are illustrated, only 7 of the “casualties” were categorised as commercial vessels, of which 4 were fishing vessels. Therefore, only two passenger vessels and one naval vessel may have had a pilot / PEC holder on board.

6.2.3 Harbour Data

Until very recently (2021) the harbour has not kept a database of comprehensive searchable incident data; however the Harbour Master was able to confirm the historically low level of commercial incidents suggested by both the MAIB and RNLI data.

6.2.4 Incident summary

For the purposes of this NRA, the assessors took into account the very low rate of incidents involving vessels required to embark pilotage (largely driven by the very low numbers of such vessels) but also used professional judgement when assessing risks, including knowledge of incident rates in similar harbours and approaches to benchmark the assessment of frequencies with which hazards may occur.

6.3 STAGE 3: EFFECTIVENESS OF PILOTAGE AS A RISK CONTROL

There should be a sense of increased confidence when the pilot comes on board the ship. Not only does the pilot bring local expertise that reduces the risk of navigating in constrained waters, but he should also add to the effectiveness of the bridge team.

The local knowledge, integration into the bridge team and expertise of the pilot may therefore contribute to a meaningful reduction in the “frequency” of a collision, contact or grounding event occurring.

Following discussions between Marico experts and the Harbour Master, the following level of pilotage effectiveness was agreed for each of the hazard scenarios assessed.

Table 2: Effectiveness of the Pilotage Risk Control

Hazard Assessed	Category	Effectiveness of Control Measure			
Commercial vessel (including those vessels carrying Dangerous Goods (DG)) greater than 50m collides with a leisure / fishing / workboat /vessel carrying 12 or less pax in Bay	Collision	Present Residual Effect			
		Freq. Eff.	80%	Cons. Eff.	0%
Pax vessel carrying more than 12 collides with another commercial vessel (including those vessels carrying DG) underway in Bay inside CHA/SHA	Collision	Present Residual Effect			
		Freq. Eff.	75%	Cons. Eff.	0%
Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to/in harbour	Collision	Present Residual Effect			
		Freq. Eff.	80%	Cons. Eff.	0%
Commercial vessel (including those vessels carrying DG) greater than 50m collides with another commercial vessel underway in Bay within CHA/SHA	Collision	Present Residual Effect			
		Freq. Eff.	75%	Cons. Eff.	0%
Passenger vessel carrying more than 12 collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to and/or harbour	Collision	Present Residual Effect			
		Freq. Eff.	80%	Cons. Eff.	0%
Commercial vessel (including those vessels carrying DG) greater than 50m collides with commercial vessel harbour entrance / approaches to	Collison	Present Residual Effect			
		Freq. Eff.	50%	Cons. Eff.	0%
Commercial vessel (including those vessels carrying DG) greater than 50m contacts harbour infrastructure	Contact	Present Residual Effect			
		Freq. Eff.	60%	Cons. Eff.	0%
Passenger vessel carrying more than 12 contacts harbour infrastructure	Contact	Present Residual Effect			
		Freq. Eff.	60%	Cons. Eff.	0%

Hazard Assessed	Category	Effectiveness of Control Measure			
Any vessel dragging its anchor in Weymouth Bay anchorage resulting in grounding	Grounding	Present Residual Effect			
		Freq. Eff.	10%	Cons. Eff.	0%
Commercial vessel (including those vessels carrying DG) greater than 50m grounds in approaches to and/or in harbour	Grounding	Present Residual Effect			
		Freq. Eff.	75%	Cons. Eff.	0%
Passenger vessel carrying more than 12 grounds in approaches to or in harbour	Grounding	Present Residual Effect			
		Freq. Eff.	75%	Cons. Eff.	0%

6.3.1 Pilotage Effectiveness - Grounding

The pilot's local knowledge in particular should reduce the frequency of a vessel grounding whilst in transit. The effectiveness of pilotage in reducing the frequency of grounding events was therefore scored highly at 75%, except for grounding due to anchor dragging (10%), where pilotage is much less likely to be a factor. However, the risk cannot be entirely mitigated due to factors outside the pilot control such as vessel mechanical failure.

6.3.2 Pilotage Effectiveness - Collision

Whilst in transit a pilot may be considered to reduce the likelihood of a vessel colliding with another vessel. The pilot will be aware of other shipping movements and any constraints they may have on his manoeuvre. He will also be familiar with local maritime activities in the Bay such as diving, fishing, potting and recreational events.

However, in consideration of the pilot's effectiveness, it should not be overlooked that a competent mariner navigating his vessel in the Weymouth Bay without the benefit of a pilot has generally an unrestricted approach (in respect of other commercial traffic) to the harbour and is able to obtain local information that may restrict his manoeuvre through contact with the Weymouth Harbour Local Port Service (LPS) prior to entering the Pilotage District.

The effectiveness of pilotage in reducing the frequency of collision events was therefore scored at 50 - 80%, with the lower effectiveness applying to the larger vessels, as other mitigations (single vessel movement within CHA) being far more effective than pilotage.

6.3.3 Pilotage Effectiveness – Contact

The pilot will be familiar with the port and berth layout including bollard positions, linkspan arrangements, any restrictions alongside, as well as important details such as the availability and contact details of linesmen. In the event that a tug may be required the pilot will understand the characteristics and capabilities of the tug. However, taking into consideration events which are outwith of the pilots' control such as engine or steering failure, human error (e.g. helmsman puts the wheel the wrong way), extremes of weather, and tug error (and the very rare use of tugs), then the effectiveness of pilotage in reducing the frequency of "contact" was scored at 60% for both scenarios assessed.

6.4 STAGE 4: HAZARD SCORING

The baseline risk assessment was scored jointly by Marico Marine and the Harbour Master, with existing generic and local mitigation measures (see **Sections 6.1.1** and **6.1.2**) in place but *without* any allowance for pilotage as a risk control measure.

The exercise was then repeated but with the introduction of Pilotage as a control measure – in effect and assessment of the present level of risk with all existing controls (including pilotage) in place. The effectiveness of the pilotage control for each of the hazards assessed was considered, as described in **section 0** above.

6.4.1 Risk Ranked Summary – without pilotage

A summary of the ranked hazards, *without* pilotage as a control measure are detailed below in **Table 3**. All of the collision risks ranked higher than either contact or grounding, which is to be expected, as Pilotage is a particularly effective control measure against this hazard being realised.

The assessment demonstrates that even without pilotage, all of the hazards fall within the "Low Risk" region in terms of risk assessment and are therefore considered to be acceptable.

The highest scoring hazard was assessed to be a Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat /vessel carrying 12 or less pax in Bay, with an assessed score of 3.75.

Table 3: Ranked hazard List without pilotage in place (baseline).

Rank	Hazard Ref	Hazard Title	Category	Risk
1	3	Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat /vessel carrying 12 or less pax in Bay	Collision	3.75
2	1	Commercial vessel (including those vessels carrying DG) greater than 50m collides with another commercial vessel underway in Bay within CHA/SHA	Collision	3.72
3	2	Commercial vessel (including those vessels carrying DG) greater than 50m collides with commercial vessel harbour entrance / approaches to	Collision	3.37
4	5	Pax vessel carrying more than 12 collides with another commercial vessel (including those vessels carrying DG) underway in Bay inside CHA/SHA	Collision	3.19
5	6	Passenger vessel carrying more than 12 collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to and/or harbour	Collision	3.19
6	4	Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to/in harbour	Collision	3.13
7	10	Commercial vessel (including those vessels carrying DG) greater than 50m contacts harbour infrastructure	Contact	3.07
8	8	Passenger vessel carrying more than 12 grounds in approaches to or in harbour	Grounding	3.04
9	9	Passenger vessel carrying more than 12 contacts harbour infrastructure	Contact	3.00
10	7	Commercial vessel (including those vessels carrying DG) greater than 50m grounds in approaches to and/or in harbour	Grounding	2.71
11	11	Any vessel dragging its anchor in Weymouth Bay anchorage resulting in grounding	Grounding	2.49

6.4.2 Risk Reduction of Pilotage

By using the baseline risk assessment as a starting point (**Section 6.4.1**), the risk reduction values of pilotage and the methodology contained in **Annex A** it was possible to calculate the residual risk with the pilotage risk control added.

The effectiveness of pilotage was deemed to have only a negligible (if any) impact upon the “consequence” of a hazard occurring and so only the “frequency” reduction is estimated, as effective pilotage will result in fewer incidents occurring.

The results of the modified risk assessment are shown in **Table 4**. The table shows the initial baseline/inherent risk without pilotage in place alongside the new residual risk with pilotage, and the difference between the two.

Table 4: Risk Reduction Effectiveness of Pilotage.

Rank	Hazard Ref	Hazard Title	Category	Risk		Difference
				(Baseline)	(Residual)	
1	3	Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat /vessel carrying 12 or less pax in Bay	Collision	3.75	3.56	-0.19
2	1	Commercial vessel (including those vessels carrying DG) greater than 50m collides with another commercial vessel underway in Bay within CHA/SHA	Collision	3.72	3.35	-0.37
3	2	Commercial vessel (including those vessels carrying DG) greater than 50m collides with commercial vessel harbour entrance / approaches to	Collision	3.37	3.30	-0.07
4	5	Pax vessel carrying more than 12 collides with another commercial vessel (including those vessels carrying DG) underway in Bay inside CHA/SHA	Collision	3.19	3.19	0
5	6	Passenger vessel carrying more than 12 collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to and/or harbour	Collision	3.19	3.19	0
6	4	Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat / vessel carrying 12 or less pax approaches to/in harbour	Collision	3.13	3.13	0
7	10	Commercial vessel (including those vessels carrying DG) greater than 50m contacts harbour infrastructure	Contact	3.07	2.99	-0.08
8	8	Passenger vessel carrying more than 12 grounds in approaches to or in harbour	Grounding	3.04	2.96	-0.08
9	9	Passenger vessel carrying more than 12 contacts harbour infrastructure	Contact	3.00	2.95	-0.05
10	7	Commercial vessel (including those vessels carrying DG) greater than 50m grounds in approaches to and/or in harbour	Grounding	2.71	2.57	-0.14
11	11	Any vessel dragging its anchor in Weymouth Bay anchorage resulting in grounding	Grounding	2.49	2.49	0

As expected, the addition of pilotage as a control measure does result in an overall reduction of assessed risk; however the reduction is very low – and for four of the eleven assessed hazards there was no reduction at all. This is chiefly the result of the very low level of traffic which requires pilotage, meaning the control, while potentially effective, is little used.

All of the hazards remain in the “Low Risk” region (none move to the negligible region).

6.5 STAGE 5: RESULTS OF RISK REDUCTION ASSESSMENT

6.5.1 Comparison

A direct comparison of the risk for each of the identified hazards “with” or “without” pilotage in place can be made:

- Overall inherent risk of navigational risk in Weymouth CHA without pilotage – 34.66; and
- Overall residual risk with pilotage in place – 33.68.

These figures indicate that providing pilotage reduces the overall navigation risk by 2.8%. Therefore, for the identified hazards, pilotage is assessed as being only slightly effective at reducing the overall risk score when compared to operating without pilotage.

While pilotage is applicable to all the identified hazards it is evident that varying levels of reductions are spread across all hazards, with some hazards showing no reduction at all.

For all hazards, none of the risk scores exceeded “Low”, either with or without pilotage in place. The highest risk score with pilotage was 3.56, while the same risk (Commercial vessel (including those vessels carrying DG) greater than 50m collides with a leisure / fishing / workboat /vessel carrying 12 or less pax in Bay) also produced the highest score without pilotage of 3.75.

The greatest reduction in risk achieved through the implementation of pilotage was only assessed to be 0.37 (a very small reduction) for the hazard “Commercial vessel (including those vessels carrying DG) greater than 50m collides with another commercial vessel underway in Bay within CHA/SHA”, which produced a score reduced to 3.35 from 3.72 after the pilotage control was applied.

6.5.2 Risk Assessment Conclusions

The risk assessment has produced the following conclusions:

- All navigation hazards identified for vessels that would require a pilot under the current Pilotage Directions but scored *without* pilotage as a risk control measure were LOW risk;

- A qualitative assessment of the risk reducing effectiveness of pilotage has shown that pilotage reduces navigation risk within Weymouth CHA by only 2.8%; and
- Pilotage is most effective at reducing the risk of a Commercial vessel (including those vessels carrying DG) greater than 50m colliding with another commercial vessel underway in Bay within CHA/SHA. However, this is only by 4.8% (risk reduction from 3.72 to 3.35).

It is emphasised that the apparent lack of effectiveness of pilotage as a risk control in no way reflects on any inadequacies of the current service provision or personnel involved. Rather, the assessed lack of effectiveness is very strongly driven by the frequency with which the control might be effective.

In simple terms, the control measure is expected to be so little used (due to the rarity of vessels requiring pilotage), that effectiveness is outweighed by other control measures which apply to all vessel types, including the majority which do not require pilots to be embarked.

It should be noted that this assessment has not attempted to undertake a cost-benefit analysis and has exclusively examined the comparative benefits on the safety of navigation of providing a pilotage service or not as the case may be.

6.5.3 Risk Assessment - Recommendation

The quantitative assessment of those hazards to navigation within the Weymouth Harbour CHA Area which could be realistically mitigated through the provision of pilotage as a control measure has demonstrated that:

- The baseline level of risk without Pilotage is Low; and
- Pilotage only reduces the risk very slightly, still within the Low-risk band.

While Harbour Authorities should always strive to reduce the level of risk associated with operations in their area to the lowest level practicable, there is no clear evidence that the current pilotage service contributes significantly to a reduction of risk, all other control measures being maintained and remaining effective.

It is therefore recommended that consideration could be given to the removal of the pilotage service without introducing an unacceptable impact upon the level of navigational risk within the CHA area.

7 REVISED OPTIONS

Considering the risk assessment results and recommendations above, the three options for the pilotage service at Weymouth identified in **section 5.2** of this report are reviewed below:

- 1) No change to current arrangements;
- 2) Continue to provide pilotage, but update arrangements; or
- 3) Cease pilotage provision.

7.1 ADVANTAGES AND DISADVANTAGES OF OPTIONS

The following table (**Table 5**) shows the principal advantages and disadvantages of each of the options described above.

Table 5: Pilotage Options – Advantages and Disadvantages

Options	Advantages	Disadvantage	Recommendation
No change to current arrangements	Weymouth CHA retains the autonomy on all pilotage matters.	Number of future pilotage acts is not considered high enough to maintain level of required competency.	Not recommended – unsustainable.
		Lack of suitable personnel.	
	No administrative burden associated with reviewing Directions.	Need to maintain formal training scheme and competence of pilot(s).	
		Direct and fixed employee costs unsustainable.	
No legal costs.	Administrative burden of maintaining service.		
Continue to provide pilotage, but update arrangements	Entering a joint arrangement with another Harbour Authority is only realistic way to address the challenges of providing a pilotage service.	Not considered possible, as Portland Harbour unwilling to enter into such an agreement.	Not recommended – neither sub-option considered feasible.
		Legal challenges and associated costs.	
	Reviewing Directions may require more vessels to take pilots and generate additional income / pilotage opportunities.	Increased customer costs, unlikely to be unacceptable and would be successfully challenged by users. Insufficient vessels requiring pilotage as defined in the Pilotage Act.	

Options	Advantages	Disadvantage	Recommendation
Cease pilotage provision	Positively addresses all current challenges of providing service.	Would result in slight but acceptable increase in navigational risk.	Recommended – see below.
	Reversible decision – the PMSC requires the need for pilotage to be kept under review, so service could be re-introduced in the future if required.	Requires additional attention to ensure other controls remain effective.	
		Legal process and associated costs to remove CHA status.	

7.2 PREFERRED OPTION

The results of this assessment have identified cessation of pilotage provision as the preferred option available to Weymouth Harbour.

If this option is pursued it will be essential to keep all other risk control measures under review (as is required in any event to maintain compliance with the PMSC). In particular, those risk controls associated with management of marine traffic in the harbour area should be reviewed and if possible, improved to raise effectiveness still further.

Examples of controls which may be improved and lead to risk reductions which may offset the slight risk increase resulting from cessation of pilotage are:

- Traffic signals;
- Standard Operating Procedures;
- Directions for all vessels (noting the Authority is now empowered to make such Directions through the recent HRO); and
- Enhanced Local Port Service provision.

A review of the LPS provision is particularly recommended, to ensure that the equipment available to monitor vessel movements within the Harbour Authority Area is adequate and suitably reliable. Procedures and staff training should also be reviewed to ensure that harbour users can be reliably informed about traffic movements, and navigation conditions whenever necessary, and in the absence of Pilots.

8 RECOMMENDATIONS

Taking in to account the current and expected future traffic profile of Weymouth Harbour, and the result of the formal navigation risk assessment forming Section 6 of this document, the following recommendations are made to Weymouth Harbour:

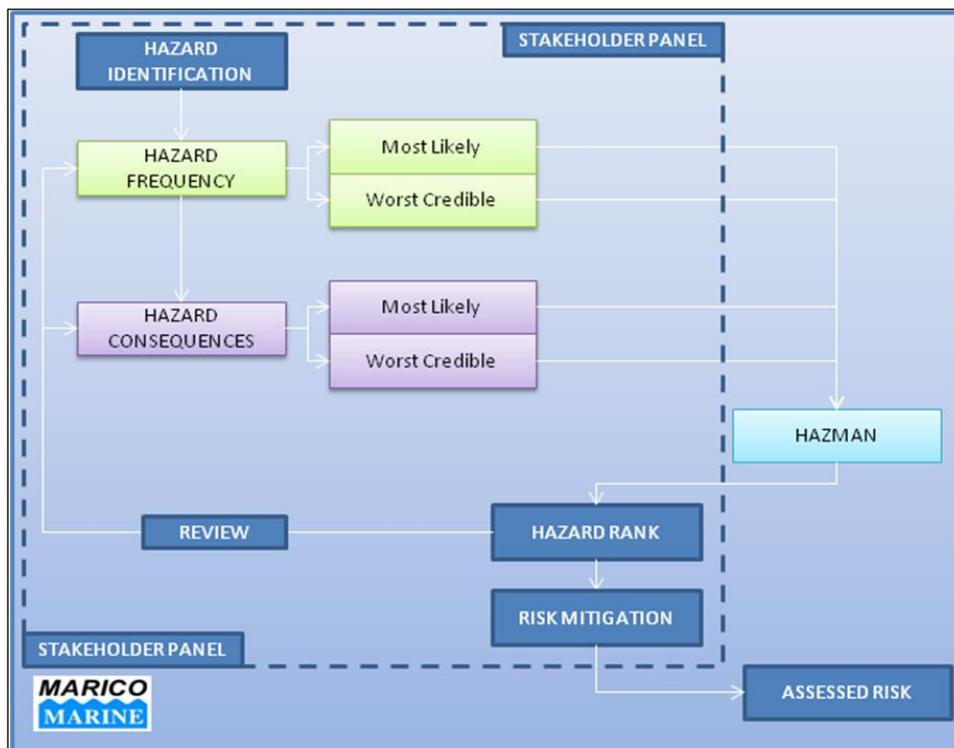
4. Commence the process of removing the Harbour Authority's Pilotage functions, as provided for under The Marine Navigation Act 2013¹.
5. Before the Pilotage service is removed, fully review and if possible, enhance relevant existing control measures, in particular:
 - a. Make use of the 2021 HRO to issue General Directions which will become enforceable as soon as pilotage ceases.
 - b. Review the Harbour's LPS provision.
6. Ongoing: through routine navigation risk assessment review, keep the need for pilotage (and all other risk mitigations) under consideration, and should the traffic profile of the harbour change, be prepared to re-introduce Pilotage or alternative risk controls in the future.

¹ Although outside the scope of this report, it is noted that Dorset Council has also been recommended (by the PMSC Designated Person) to remove the Pilotage functions for Bridport Harbour, and there may be some efficiencies in progressing both applications concurrently).

Annex A Risk Assessment Methodology

RISK ASSESSMENT METHODOLOGY

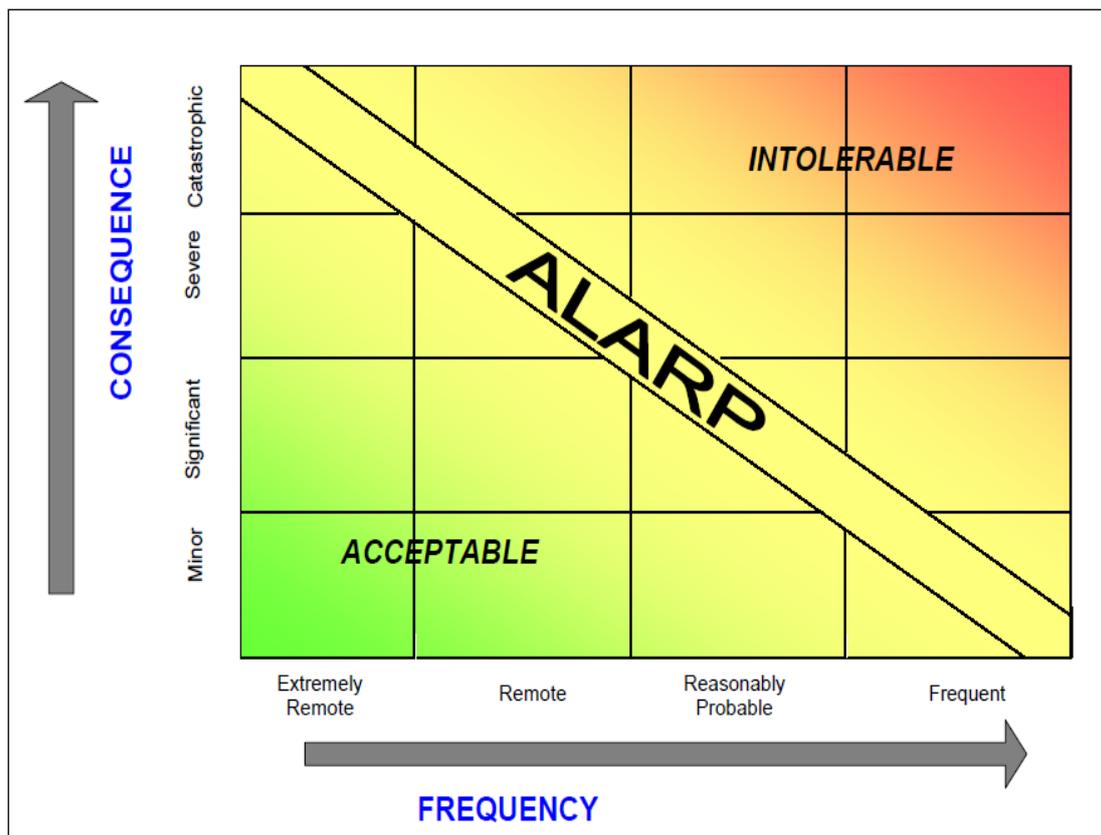
This Navigation Risk Assessment (NRA) identifies possible mitigation measures, where appropriate, and makes recommendations. The process starts with the identification of all potential hazards. It then assesses the likelihood (frequency) of a hazard causing an incident and considers the possible consequences of that incident. It does so in respect of two scenarios, namely the “most likely” and the “worst credible”. The quantified values of frequency and consequence are then combined using the Marico HAZMAN II software to produce a Risk Score for each hazard. These are collated into a “Ranked Hazard List” from which the need for possible additional mitigation may be reviewed.



Marico Marine hazard identification process

Criteria for Navigation Risk Assessment

Risk is the product of a combination of consequence of an event and the frequency with which it might be expected to occur. In order to determine navigational risk a Formal Safety Assessment (FSA) approach to risk management is used. International Maritime Organisation (IMO) Guidelines define a hazard as “*something with the potential to cause harm, loss or injury*”, the realisation of which results in an accident. The potential for a hazard to be realised can be combined with an estimated or known consequence of outcome. This combination is termed “risk”. Risk is therefore a measure of the frequency and consequence of a particular hazard.



General risk matrix

The combination of consequence and frequency of occurrence of a hazard is combined using a risk matrix (see above), which enables hazards to be ranked and a risk score assigned. The resulting scale can be divided into three general categories:

- Acceptable;
- As Low As Reasonable Practicable (ALARP); and
- Intolerable.

At the low end of the scale, frequency is extremely remote and consequence minor, and as such the risk can be said to be “acceptable”, whilst at the high end of the matrix, where hazards are defined as frequent and the consequence catastrophic, then risk is termed “intolerable”. Every effort should be made to mitigate all risks such that they lie in the “acceptable” range. Where this is not possible, they should be reduced to the level where further reduction is not practicable. This region, at the centre of the matrix is described as the ALARP region. It is possible that some risks will lie in the “intolerable” region, but can be mitigated by measures, which reduce their risk score and move them into the ALARP region, where they can be tolerated, albeit efforts should continue to be made when opportunity presents itself to further reduce their risk score.

Hazard Identification

Hazard identification is the first and fundamental step in the risk assessment process. In order to ensure that the process was both structured and comprehensive, potential hazards were reviewed under the following headings:

- Incident category; and
- Operational area

The incident categories identified as being relevant to this study are:

- Collision
- Grounding; and
- Contact.

Risk Matrix Criteria

As indicated earlier, frequency of occurrence and likely consequence are both assessed for the “most likely” and “worst credible” scenario. Frequencies and consequences of occurrences were assessed using the same criteria as adopted by Dorset Council for other harbour assessments for consistency.

Frequency was assessed according to the levels set out in the table below.

Frequency criteria

Scale	Description	Operational Interpretation
F5	Almost Certain	More than once a month
F4	Likely	More than once in 6 months
F3	Possible	Once per year
F2	Unlikely	Less than once in 10 years
F1	Rare	Less than once in 100 years

Using the assessed notional frequency for the “most likely” and “worst credible” scenarios for each hazard, the probable consequences associated with each are assessed in terms of damage to:

- Criticality of Service (inc Environment)
- Financial
- Health and Safety
- Reputational
- Strategic

The magnitude of each is then assessed using the consequence categories given in the table below.

Consequence categories and criteria

	Financial	Strategic	Health & Safety	Reputational	Criticality of Service
CATASTROPHIC	Over £300,000	Complete failure to deliver on a strategic priority	Fatality; multiple permanent injuries	Receives national / international attention with potential for long term impact on public memory; Total loss in public confidence	Critical Service Level One (i.e. Those that present a major risk to public health or safety)
MAJOR	£100,000 - £300,000	Major impact (positive or negative) on a strategic priority	Major injury or illness leading to long term incapacity/ disability; multiple significant injuries	Receives national / international attention with medium term impact on public memory	Critical Service Level Two (i.e. Those that present a medium to major risk to reputation / finances)
MODERATE	£50,000 - £100,000	Moderate impact (positive or negative) on a strategic priority	Moderate injury or illness requiring professional intervention; RIDDOR reportable; multiple minor injuries	Receives local press attention with medium term impact on public memory	Critical Service Level Three (i.e. Those that present a medium risk to public health or safety)
MINOR	£10,000 - £50,000	Minor impact (positive or negative) on a strategic priority	Minor injury or illness requiring minimal intervention or treatment	Receives local press attention but with likely short term impact on public memory	Critical Service Level Four (i.e. Those that present a low to medium risk to reputation / finances)
NEGLECTIBLE	Up to £10,000	Negligible impact (positive or negative) on a strategic priority	None, or minimal injury or illness requiring no intervention or treatment	Minor complaints or rumours	Critical Service Level Five (i.e. Those that present minor risk to public health or safety)

Hazard Data Review Process

Frequency and consequence data are assessed for each hazard for both most likely and worst case scenarios.

Having decided in respect of each hazard which frequency and consequence criteria are appropriate for the five consequence categories in both the “most likely” and “worst credible” scenarios, ten risk scores are obtained using the following matrix (see below).

Risk factor matrix used for hazard assessment.

Consequences	Cat 5	5	6	7	8	10
	Cat 4	4	5	6	7	9
	Cat 3	3	3	4	6	8
	Cat 2	1	2	2	3	6
	Cat 1	0	0	0	0	0
	Frequency	Rare	Unlikely	Possible	Likely	Almost Certain

Where:

<i>Risk Number</i>	<i>Risk</i>
<i>0 to 1.9</i>	<i>Negligible</i>
<i>2 to 3.9</i>	<i>Low Risk</i>
<i>4 to 6.9</i>	<i>As Low as Reasonably Practical</i>
<i>7 to 8.9</i>	<i>Significant Risk</i>
<i>9 to 10.0</i>	<i>High Risk</i>

It should be noted that occasionally, a “most likely” scenario will generate a higher risk score than the equivalent “worst credible” scenario; this is due to the increased frequency often associated with a “most likely” event. For example, in the case of a large number of small personal injuries, the total number of accidents might be of greater significance than a single fatality at a lesser frequency.

Hazard Ranking

The risk scores obtained from the above process are then analysed further to obtain four indices for each hazard as follows:

- The average risk score of the four categories in the “most likely” set;
- The average risk score of the four categories in the “worst credible” set;
- The maximum risk score of the four categories in the “most likely” set; and
- The maximum risk score of the four categories in the “worst credible” set.

These scores are then combined in Marico Marine’s hazard management software “HAZMAN II” to produce a single numeric value representing each of the four indices. The hazard list is then sorted in order of the aggregate of the four indices to produce a “Ranked Hazard List” with the highest risk hazards prioritised.

Annex B Pilotage Directions – January 2020

DORSET COUNCIL

WEYMOUTH HARBOUR

WEYMOUTH PILOTAGE DISTRICT

PILOTAGE DIRECTIONS

JANUARY 2020

**DORSET COUNCIL
COMPETENT HARBOUR AUTHORITY (CHA) WEYMOUTH & PORTLAND
(PILOTAGE) HARBOUR REVISION ORDER (HRO) 1988**

WEYMOUTH HARBOUR

WEYMOUTH PILOTAGE DISTRICT

PILOTAGE DIRECTIONS

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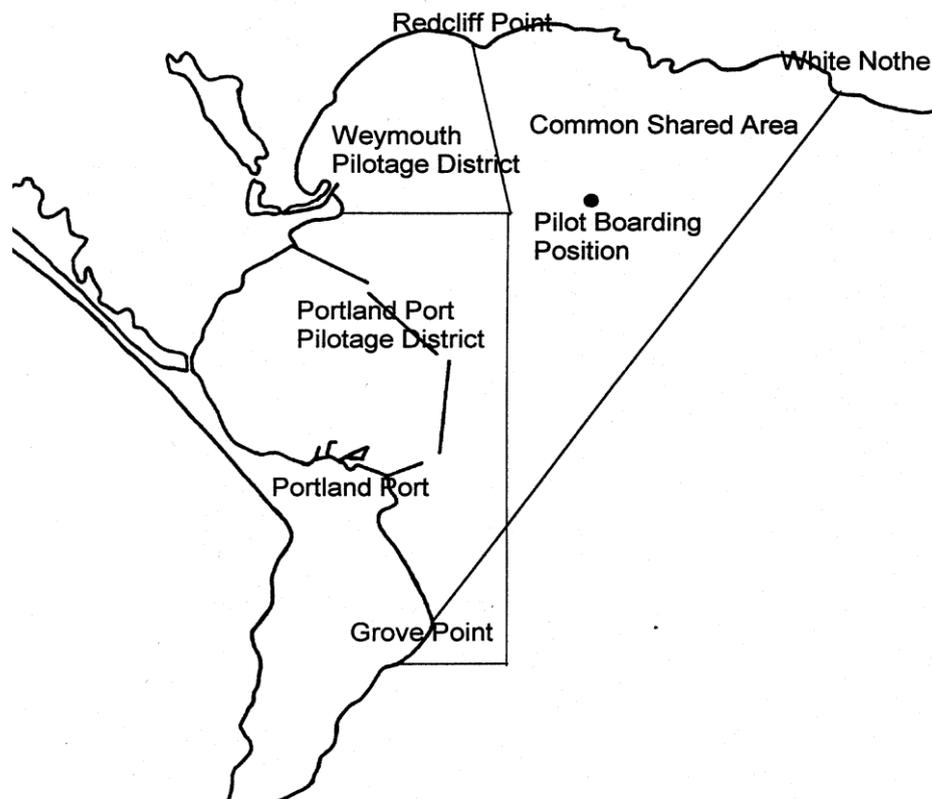
SCHEDULE NO 1 APPLICATION

- 1.1 The following Pilotage Directions and Regulations will apply to vessels navigating in the Dorset Council CHA Weymouth Pilotage District from 1 January 2015.
- 1.2 Pilotage in the Weymouth District is compulsory (Pilotage Act 1987).
- 1.3 The following categories of vessels are excluded from compulsory Pilotage:
 - (a) HM Naval Ships
 - (b) Naval Vessels of Foreign and Commonwealth Countries
 - (c) All vessels less than 50m length overall (LOA) except:
 - (i) Passenger vessels with more than 12 passengers, other than regular ferries and passenger vessels plying solely within the pilotage district approved by the CHA
 - (ii) All vessels carrying 'Dangerous Goods' as defined in The Dangerous Substances in Harbour Areas Regulations 1987 (Clause 3) with an LOA greater than 36.6m, other than Naval vessels as per (a)(b) & (c) above.
 - (d) All vessels and boats licensed under the Public Health Acts Amendment Act 1907
- 1.4 When an authorised Weymouth District Pilot is required, twenty four hours notice of estimated time of arrival (ETA) or estimated time of departure (ETD) must be given. Confirmation of ETA/ETD must be given at least two hours prior to actual arrival/departure time. Failure to give requisite notice may incur a penalty charge.

SCHEDULE NO 2

GEOGRAPHICAL LIMITS OF PILOTAGE DISTRICT

- 2.1 The Pilotage District is defined as the area to the west of a line joining Grove Point (Portland), latitude 50°32.922'N, longitude 002°24.867'W, and White Nothe, latitude 50°37.450'N, longitude 002°19.317'W, and defined within the Pilotage Act 1913, as determined by Harbour Revision Order but excluding Portland Inner and Outer Harbour.
- 2.2 The area within the line described in 2.1 above, not covered by Weymouth or Portland Harbours is a joint pilotage area between Portland Harbour Authority and Weymouth Harbour Authority. Pilotage for all vessels proceeding west of a line joining Grove Point (Portland) and White Nothe (coordinates as above), but remaining outside the limits of Portland Harbour Authority and the Port of Weymouth will depend on local conditions and activity. All such vessels are to contact Portland Port Control on CH 74 or 01305 824044.
- 2.3 Bad Weather Anchorage – in vicinity of latitude 50°37'N, longitude 002°23.1'W - any vessel not being serviced by Portland or Weymouth Harbour Authorities, is exempt from compulsory pilotage for arrival and departure from the Bad Weather Anchorage only.
- 2.4 The Pilot Boarding Position is: latitude 50° 36.6'N longitude 002°22.9'W (as charted on Admiralty Chart No. 2255).



SCHEDULE NO 3 ADDITIONAL INFORMATION

3.1 Boats and Boarding

- (a) Weymouth Pilot Boat 'M.V. Melwey' is contactable on VHF Channel 12 prior to and during acts of pilotage or via Weymouth Harbour Radio VHF Channel 12 at other times.
- (b) The Master of a vessel requiring the services of a pilot must comply with the Merchant Shipping (Pilot Transfer Arrangement) Regulations 1999 and IMO resolution A1045(27). Further information is available from the Joint UKMPA / BPA / UKMPG guidance "The Embarkation & Disembarkation Of Pilots Code Of Safe Practice" revised August 2017.

3.2 Documentation

- (a) The Master of a vessel having accepted the services of a pilot is required to complete and sign a Master - Pilot Exchange Form prior to the act of pilotage commencing (example page 11).
- (b) The Master of a vessel carrying dangerous or polluting goods must refer to and implement the mandatory reporting regulations associated with dangerous goods.
- (c) A Weymouth Pilotage District Service Return Form must be completed and signed.

3.3 Reporting Procedure

A report must be made in writing in the event of any misconduct or unsatisfactory performance by the Weymouth Pilot, or by the pilot vesselcoxswain and crew, and forwarded without delay to:

Weymouth Harbour Master
Dorset Council
13 Custom House Quay
Weymouth
Dorset DT4 8BG

Telephone: 01305 838386
Fax: 01305 767927

3.4 Report on Navigational Changes

Authorised Pilots and Exemption Certificate holders who observe any changes in the navigable channels, navigational buoys out of position, lights not conforming to listed sequences or any other matter appertaining to safe navigation, shall immediately inform the CHA.

3.5 Reported Groundings, Collisions and Unnecessarily Close Quarters Situations

When a ship under the conduct of an Authorised Pilot, or a Pilotage Exemption Certificate Holder, has touched the ground or has been in collision or an unnecessarily close quarters situation with any other ship or any fixed or floating object in the Pilotage District, he shall report the occurrence within 24 hours and confirm in writing to the Authority within six days of the occurrence.

3.6 CHA Investigation/Inquiry following an incident

Authorised Pilots and Pilotage Exemption Certificate Holders shall, in obedience to the order or summons of the CHA, attend to answer any complaint or charge which is made against them for misconduct, or in respect of any marine casualty which may have occurred whilst they were in charge of their vessels in the Pilotage District for which they are certified.

3.7 Pilotage Certificate Disciplinary Code

- (a) In the event of a marine casualty or a serious incident where the Pilotage Certificate holder was involved, and was subsequently blamed following an inquiry by the CHA, may lead to the Authorisation or Exemption Certificate being withdrawn for a period of time or revoked dependent on the nature or extent of the incident.
- (b) In special circumstances, if there is considered to be justification, a Pilotage Exemption Certificate may be withdrawn or suspended by Dorset Council. In this event, the holder will have a right of appeal to Dorset Council who would, in that event, convene a suitably qualified 'Board of Appeal' to conduct an inquiry.

3.8 Refusal of Application for Grant/Renewal or Alteration of Certificate or Suspension or Revocation of a Certificate

Before refusing an application by any person for the grant, renewal or alteration of a Certificate as described above, or the suspension or revocation of a Certificate held by any person, Dorset Council as CHA will give written notice of its intention to do so stating the reasons for which it proposes to so act and shall give the applicant a reasonable opportunity to make representations.

3.9 Suspension or Revocation of a Pilotage Authorisation

The CHA may suspend or revoke a Pilot's Authorisation if it appears that:

- (a) The authorised person has been guilty of any incompetence or misconduct affecting their capability as a Pilot;
- (b) The authorised person has ceased to have the qualifications required under this section or has failed to provide evidence that they continue to have those qualifications;
- (c) The number of persons authorised by the CHA exceeds the number required to be authorised;
- (d) It is appropriate to do so by virtue of the termination of any contract or other arrangement under which the services of pilots are provided within the Pilotage District.

SCHEDULE NO 4 PILOTAGE FEES AND CHARGES

4.1 Fees Related to the Issue, Examination and Renewal of Pilotage Exemption Certificates

An applicant for an Exemption Certificate or holder of an Exemption Certificate shall pay such fee as shall be laid down by Dorset Council as Competent Harbour Authority in respect of any examination required to be taken or in respect of the grant, renewal or alteration of any Pilotage Exemption Certificate. Fees are detailed in the Weymouth Harbour Scale of Charges.

4.2 Charges for Pilotage

- (a) Charges for the services of an authorised pilot are published annually in the Weymouth Harbour Scale of Charges and are available from the Weymouth Harbour Office, 13 Custom House Quay, Weymouth DT4 8BG.
- (b) Vessels that fail to meet their reported ETA or ETD or fail to give sufficient notice (see Paragraph 6 of Pilotage Directions) may be liable to a penalty payment of 25% of appropriate fees.
- (c) If a pilot has attended a vessel or the pilot boarding position for the time requested and the Act of Pilotage has not commenced within 1 hour of that time the request for services will be cancelled and a charge of 50% of the appropriate fee will be levied.
- (d) An Act of Pilotage will be deemed to be completed once the vessel has secured at a safe berth or anchorage within, or has departed from, the Weymouth Pilotage District.
- (e) The over-carrying of a pilot will incur a charge per 24 hr period or part thereof until the pilot is returned to Weymouth. The ship will be responsible for any repatriation charges which may occur.
- (f) Failure to take a pilot may result in prosecution and a charge of up to twice the appropriate fee may be levied.
- (f) If a vessel is unable to reach the destination for which the pilot has been engaged a charge may be made equivalent to the appropriate fee.

4.3 Review of Charges

The Weymouth CHA will review charges annually or as they deem necessary.

SCHEDULE NO 5

•STANDARDS AND CRITERIA REQUIRED FOR THE ISSUE OF PILOTAGE EXEMPTION CERTIFICATES (PECs) AND PILOTAGE AUTHORISATIONS

Procedures in this Schedule should comply with the recommendations of the Port Marine Safety Code Guide To Good Practice for PECs, IMO resolution A.960 (23) and the UK National Occupational Standards for pilots for pilotage Authorisations as per the 1987 Pilotage Act.

5.1 Application for Examination for a Pilotage Exemption Certificate

Any bona fide Deck Officer, subject to the CHA being satisfied that the officer has the necessary skills, experience and local knowledge, of vessels to which this section applies (see below) may apply to the Harbour Master for, and be issued with, a Pilotage Exemption Certificate for the District, subject to qualification both by examination and by experience.

Applicable vessels:

- (a) All routine passenger vessels, with the exception of vessels noted in paragraph 2 (d) of Pilotage Directions and regular ferries and passenger vessels plying solely within the Weymouth Pilotage District, Portland Port Pilotage District and Common Shared Area
- (b) All other vessels greater than 50m LOA.

Any Deck Officer of a ship applying for a Pilotage Exemption Certificate shall satisfy the CHA as to:-

- (a) Name of person requiring PEC;
- (b) Department of Transport Qualification/Certificate with number or equivalent;
- (c) Name of vessel(s), type, LOA and description of every ship he/she requires to pilot;
- (d) Name and address of owners;
- (e) Name and address of local agents, if applicable;
- (f) Qualification and experience in the Pilotage District including having conduct of the navigation under the supervision of an authorised pilot or a PEC holder for the following number of acts of pilotage in the District in the last twelve months:
 - (i) All regular passenger ferries and vessels carrying passengers within the limits of the Pilotage District - 8 acts of pilotage (4 round trips) minimum;
 - (ii) Vessels in excess of 50 metres LOA excluding those defined in paragraph 2 of these directions - 8 acts of pilotage (4 round trips) minimum;
 - (iii) All other vessels in excess of 50 metres LOA including barges, dredgers, sludge vessels and similar harbour craft - 8 acts of pilotage (4 round trips) minimum;

- (g) A signed declaration by the applicant confirming medical fitness on the form supplied by the CHA;
- (h) Candidates must have a satisfactory knowledge of the International Regulations for Preventing Collisions at Sea, local regulations, Harbour Byelaws, local notices to mariners and marine emergency procedures in force with respect to the Pilotage District;
- (i) Candidates must have a knowledge of the Port VHF Radio procedures;
- (j) Candidates must have a satisfactory working knowledge of the English language;
- (k) Candidates must be fully conversant with the Dangerous Substances in Harbour Areas Regulations 1987, where applicable to the Pilotage District.

5.2 Conditions related to the Examination, Renewal and Issue of a Pilotage Exemption Certificate

- (a) Examinations shall be held in such places and at such times as the CHA may direct. If a candidate twice fails to pass the examination, any further examination shall be deferred for a period of at least three months from the date of the second examination.
- (b) Certificates will include the name and description of each ship and class or type of vessel that the certificate holder is authorised to pilot in the District.
- (c) Certificate holders shall not allow any other person to have possession or make improper use of the certificate.
- (d) Certificate holders shall conform strictly to all local Pilotage requirements.
- (e) Certificates shall be renewable annually and applications should be made at least one month in advance of the expiry date.
- (f) Pilotage Exemption Certificates shall not be renewed unless the certificate holders have completed, during the past twelve months, 6 acts of Pilotage in the Pilotage District.
- (g) Pilotage Exemption Certificates shall not be renewed unless holders can satisfy the CHA of their continuing knowledge of Pilotage requirements within the District.
- (h) A signed declaration by the applicant confirming medical fitness on the form supplied by the CHA.
- (i) Special consideration will be given when certificates are due for renewal after holders reach the age of 65 years.

5.3 Application for Examination for Full Pilotage Authorisation

- (a) Application by candidates for a full Pilotage Authorisation must be made in writing to Weymouth Harbour Master, Dorset Council when such

Authority advertises in order to maintain the number of pilots required as they deem necessary to meet the requirements of the Pilotage District. The application should state the following:

- (i) Name and Address
 - (ii) Date of Birth
 - (iii) Evidence of medical fitness and standard of eyesight
 - (iv) Qualifications
 - (v) Length of Service
 - (vi) Local Knowledge
 - (vii) Names and addresses of two referees
 - (viii) Experience
- (b) If the Applicant is considered suitable by the CHA, he will be required to undertake the following pilotage acts (day and night) under the supervision of an authorised pilot:
- (i) 8 if a current pilot for another CHA
 - (ii) 20 otherwise.

After which he must be prepared for examination on the syllabus as listed in Schedule 2.1 (h), (i), (j) and (k) of these directions with the addition of a most detailed knowledge of the Pilotage District appertaining to all subjects of navigation, tidal streams, wharf workings, ship management through local shipping agents, and requirements of the Harbour Master's directions for Weymouth Harbour. The examiner will also cover any other requirements at his/her discretion which relate to the applicant's skill, experience or local knowledge. The examination will be at such time and such place as shall be directed by the Harbour Master.

5.4 Pilotage Examination Syllabus

The syllabus for a pilotage examination should include but not be limited to:

- Limits of CHA
- General navigation
- Experience and local knowledge
 - Coastal features
 - Name of channel/fairways
 - Clearing marks
 - Depth of water
 - Set rate and duration of tides

- General direction of tidal streams
 - Passage planning and critical areas of navigation
 - SHA limits
 - Names of jetties
 - Names of lights and their characteristics, ranges, arcs of visibility
 - Parallel indexing
 - Names of anchorages, position and limitations
 - Any restricted areas
 - Ship handling characteristics of own vessel, squat, interaction
 - Operations with tugs, communications and precautions
 - Local emergency plans
 - Dangerous substances in harbour area regulations.
 - Radio stations and communications
-
- Re-examination procedure after first failure.

DORSET COUNCIL WEYMOUTH PILOTAGE

DISTRICT

PILOT INFORMATION FORM/VESSEL DETAILS

VESSEL NAME	PILOT CARD SIGHTED? YES/NO
FLAG	DANGEROUS CARGO? YES/NO
LOA	
GRT	
DRAFT	

PILOTAGE INFORMATION

DATE	TIME
PILOTAGE FROM	PILOTAGE TO
PILOTAGE PLAN AGREED? YES/NO	TOWAGE? YES/NO
TIDAL INFORMATION	WEATHER INFORMATION
TIME OF HW	WIND DIRECTION
HEIGHT	WIND SPEED
TIME OF LW	SEA STATE
HEIGHT	WEATHER

ADDITIONAL INFORMATION

Leading Lights/Marks 239 Deg 38 Mins.
Note closeness to South Pier when on Leading Lights/Marks to avoid bar from main beach.
Predominant wind SW with curvature along quays.
Swell in harbour in winds from South through East to North.
Concrete mattress on seabed adjacent to No.3 Berth.
Bridge Times – 0800, 1000, 1200, 1400, 1600, 1800, 2000*, 2100* (* - summer)
Minimum UKC.
Defects.

PILOT NAME	SIGNATURE
MASTER NAME	SIGNATURE