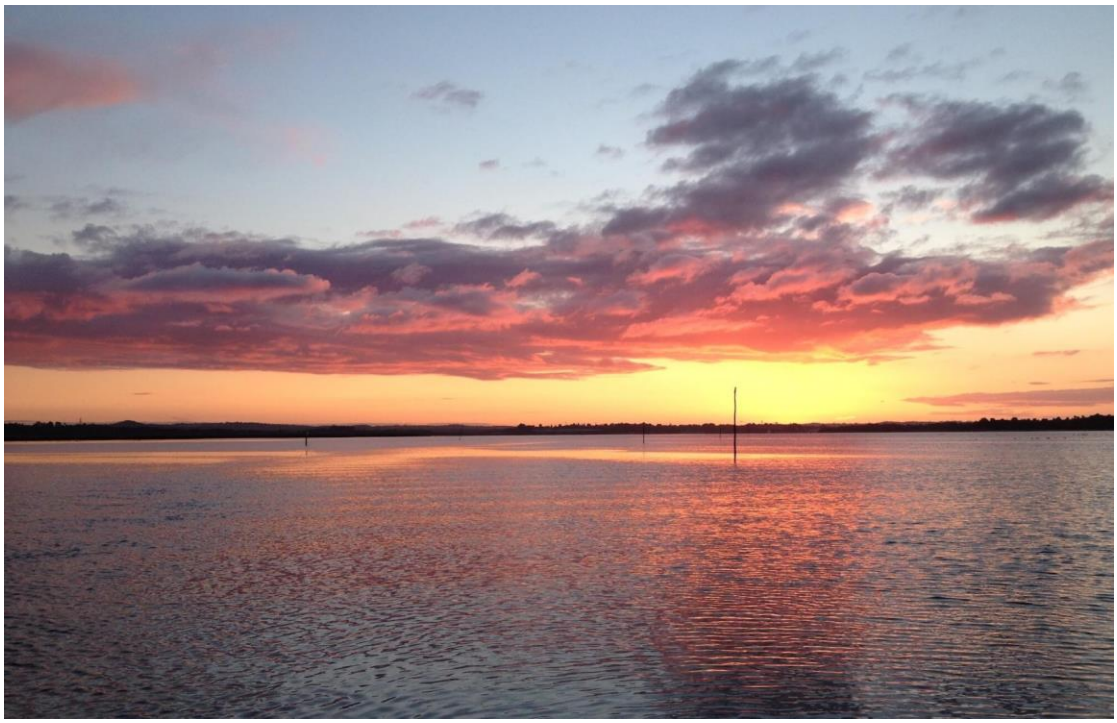
Southern Inshore Fisheries and Conservation Authority

Poole Harbour Several Order 2015 Management Plan: 2025 Revision



Document Control

Title	**Southern IFCA Poole Harbour Several Order 2015 Management Plan**
Approver	Secretary of State
Owner	Southern IFCA

Revision History: Tranche 1 2015-2020

Base Document	Author	Reason
As above	Sarah Birchenough	Developed in line with requirements under Poole Harbour Fishery Order 2015. Management Plan directs governance of the Tranche 1 lease allocations (July 2015-June 2020).

Annual Review	Author	Details	Approver
2016	Neil Richardson	No significant changes	Rob Clark
2017	Neil Richardson	No significant changes	Rob Clark
2018	Neil Richardson	No significant changes	Rob Clark
2019	Pia Bateman	Addition of 2018 Natural England (NE) Site Management Statement	Rob Clark

Revision History: Tranche 2 2020-2025

Base Document	Author	Reason	Approver	Published
Southern IFCA Poole Harbour Several Order 2015 Management Plan (2020 Revision)	Pia Bateman	Revised edition to consider significant changes to the management of lease beds as detailed in Section 1.1 of this document. The Management Plan directs governance of the Tranche 2 lease allocations for the period July 2020-June 2025.	(1) Southern IFCA Authority, May 2020. (2) Secretary of State sign off	30th June 2020

Annual Review	Author	Reason	Approver	Published
2021	Pia Bateman	• Addition of Management Plan 3 (Section 7) following receipt of formal advice from NE in December 2020 on newly allocated lease beds 7, 8 and 12. • Additions to Management Plan 5 (Section 7) following an update in advice from NE regarding the farming of Pacific oysters. • Additions to Section 5.3 re: Lease Condition Requirements following a change in ownership & methodology on Lease Bed 3.	Southern IFCA Authority, May 2021	May 2021
2022	Sarah Birchenough	• Update in Section 1 and Section 2.2.2 (with the removal of Section 2.2.3) to reflect legislative changes following the UK's exit from the EU.	Southern IFCA Authority, May 2022	May 2022

		• Addition of text to Management Plan 5 (Section 7) to reflect the 2022 update from Defra regarding the farming of Pacific oysters.		
2023	Sarah Birchenough	• Update in Section 3.2.1 regarding Pacific oyster monitoring data with other refs to this work updated accordingly in Management Plan 5 (Section 7) • Addition of text to Management Plan 5 (Section 7) to reflect updates from Defra regarding the farming of Pacific oysters	Southern IFCA Authority, May 2023	May 2023
2024	William Meredith-Davies	• No significant changes.	Southern IFCA Authority, May 2024	May 2024

Revision History: Tranche 3 2025-2030

Base Document	Author	Reason	Approver	Published
Southern IFCA Poole Harbour Several Order 2015 Management Plan (2025 Revision)	William Meredith-Davies Sarah Birchenough	Developed in line with requirements under Poole Harbour Fishery Order 2015. Management Plan directs governance of the Tranche 3 lease allocations (July 2025-June 2030). Revised edition to consider the expiration of the T2 leases on 30th June 2025.	Southern IFCA Technical Advisory Sub-Committee	30th June 2025

Annual Review	Author	Reason	Approver	Published
2025	William Meredith-Davies	• Expiration of the second Tranche (T2) of lease bed allocation on the 30th June 2025 and the implementation of the third Tranche (T3) on the 1st July 2025. • Addition of Section 3.4 'Ensuring compatibility between aquaculture and biosecurity' that highlights relevant information SIFCA records in relation to Biosecurity, and outlines the requirements on the leaseholder and the role of SIFCA in the process of reporting shellfish movements through the Shellfish Movement Guidance Document. • Addition of Section 3.4 'Ensuring compatibility between aquaculture and biosecurity' that highlights what information SIFCA records in relation to Biosecurity, and outlines the requirements on the leaseholder and the role of SIFCA in the process of reporting shellfish movements through the Shellfish Movement Guidance Document. • Addition of Management Plan 6 that comprises a review of how aquaculture management and ongoing practices taking place within 'the Order' support the delivery of key legislation	Southern IFCA Technical Advisory Sub-Committee	30th June 2025

Contents

1.0 Summary

The objective of this Management Plan is to demonstrate how Southern Inshore Fisheries and Conservation Authority (IFCA) manage aquaculture activity within a defined area of Poole Harbour under The Poole Harbour Fishery Order 2015 ('The Order'). In accordance with Section (1) of the Sea Fisheries (Shellfish) Act 1967, The Order confers on Southern IFCA the right of several fishery for the cultivation of shellfish of any kind for a period of twenty years from the 1st July 2015.

Under Section (3) of The Order, the Authority must manage the aquaculture in Poole Harbour in line with the Management Plan entitled Poole Harbour Several Order 2015 Management Plan ('Management Plan').

Under Section (4) of The Order, the Authority is required to undertake an annual review of the Management Plan. If, during this review any changes are made to the Management Plan, then the Authority must notify, in writing[1] any interested parties[2] of any proposed changes to the Management Plan. The Authority must, prior to publication of the updated Management Plan, take account of any representations it receives in writing from any interested party on the proposed changes.

The management of aquaculture within Poole Harbour must have specific regard to Southern IFCA's responsibilities, as defined in sections (153), (154) and (166) of the Marine and Coastal Access Act (MaCAA) 2009.

In addition, Southern IFCA is a Relevant Authority in the management of sites within the National Site Network, designated under the Habitats Directive and/or Birds Directive, and has a statutory responsibility to ensure that fishing activity does not damage, disturb or have an adverse effect on the wildlife or habitats for which a National Site Network Site has been designated. This includes the governance of the conservation interests of the Poole Harbour Special Protection Area (SPA).

Under sections (28G) and (28I) of the Wildlife and Countryside Act, 1981, IFCAs are required to have consideration of any Site of Special Scientific Interest (SSSI) with marine components giving protection to species and habitats of national importance when carrying out its duties. This includes the governance of the conservation interests of the Poole Harbour SSSI. The Management Plan also has regard to the Poole Harbour Wetland of International Importance under the Ramsar Convention.

[1] At least four weeks prior to 1st July

[2] Paragraph 4 (4) of The Order defines 'interested parties' as the Secretary of State; Natural England; any person likely to be affected by the Management Plan or changes to it; or any person whom the Authority consider may be the owner, lessee or occupier of the fishery area.

1.1. Significant Changes in the Management Plan 2025

The original Poole Harbour Several Order 2015 Management Plan[3] was produced following full and extensive consultation with all interested parties, relevant bodies and stakeholders. Annual reviews have been carried out since 2015, any amendments to annual versions of the Plan are documented in the Revision History tables on pages 2-3.

The 2025 edition of the Management Plan ('Management Plan: 2025 Revision') underwent a full update in recognition of the expiration of the second tranche (T2) of lease bed allocation on 30th June 2025.

In Section 7.0 of this document there are six Management Plans which document the actions that have been taken by Southern IFCA since 2015 in response to either the advice received from NE concerning the management of aquaculture in Poole Harbour, ensuring compatibility with marine nature conservation designations, as well as species-specific measures, mitigations related to water users and an outline of how management of The Order is supporting the delivery of national legislation and policy.

The Management Plans are:

Management Plan 1: Aquaculture and the Poole Harbour SPA Designation.

Management Plan 2: Aquaculture and the Poole Harbour SSSI Designation.

Management Plan 3: Aquaculture and the Poole Harbour RAMSAR site.

Management Plan 4: Aquaculture and species interaction**.**

Management Plan 5: Aquaculture and water user interaction.

Management Plan 6: Supporting delivery of national legislation & policy.

In previous versions of this document (2021-2024), Management Plan 3 referred to Aquaculture & the Poole Harbour SPA & SSSI Designations 2020 Update reflecting additional advice from NE on new lease beds under T2 as a result of the Lease Bed Reallocation Programme. The management measures associated with this update have been referenced in this document in Management Plans 1 & 2, under management measures relevant to T2 lease beds. As this management was incorporated into T2 and has been in place for the period 2020-2025 there is not a need for a separate Management Plan in the 2025 version of this document, Management Plans have therefore been re-numbered accordingly. Previous versions of the Management Plan are available on request from Southern IFCA.

[3] Available from Southern IFCA on request

2.0 Background

2.1 Poole Harbour

Poole Harbour is an estuary enclosed by a bar at the mouth with fresh water entering through several small rivers, the largest of which is the River Frome. The Harbour is the largest natural harbour in Europe and the second-largest natural harbour in the world. The Harbour covers an area of 38 km^2 and contains five islands, the largest of which is Brownsea Island.

The Harbour contains a variety of different habitat types leading to a wide variety of benthic communities and a highly productive environment with the growth of seaweeds and saltmarsh providing a sustainable food source for suspension feeding species, deposit feeding species and grazing communities[4].

Poole Harbour is subject to a large degree of anthropogenic activity both from fishing and other Harbour processes such as maintenance dredging and recreational activities. Fishing activity occurs throughout the Harbour in the form of aquaculture and an established wild shellfishery for clams and cockles, as well as a net fishery, commercial and recreational angling and collection of bait worms by both dragging and digging.

Poole Harbours' unique and varied marine habitat is recognised through its marine nature conservation designations, of both European and National importance. The Harbour provides an excellent case study demonstrating how both commercial (wild and farmed) and recreational fishing can coexist and thrive in these designated areas.

2.2 IFCAs duties in the management of aquaculture

2.2.1 The Marine and Coastal Access Act, 2009

IFCAs' main duties and responsibilities are defined in sections (153) and (154) of the Marine and Coastal Access Act (MaCAA) 2009 being:

> (153) Management of inshore fisheries
>
> (1) The authority for an IFC district must manage the exploitation of sea fisheries resources in that district.
>
> (2) In performing its duty under subsection (1), the authority for an IFC district must—
>
> (a) seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way,
>
> (b) seek to balance the social and economic benefits of exploiting the sea fisheries resources of the district with the need to protect the marine environment from, or promote its recovery from, the effects of such exploitation,
>
> (c) take any other steps which in the authority's opinion are necessary or expedient for the purpose of making a contribution to the achievement of sustainable development, and

[4] Humphreys, J. and May, V. (eds.) 2005, *Proceedings in Marine Science 7: The Ecology of Poole Harbour*, Elsevier, Amsterdam

(d) seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.

(154) Protection of marine conservation zones

(1) The authority for an IFC district must seek to ensure that the conservation objectives of any MCZ in the district are furthered.

By definition in subparagraph (10) of Section (153), "sea fisheries resources" means any animals or plants…that habitually live in the sea, including those that are cultivated in the sea. By definition in sub paragraph (12) of Section (153), any reference to the "exploitation" of sea fisheries resources is a reference to any activity relating to the exploitation of such resources, whether carried out for commercial purposes or otherwise, including…introducing such resources to the sea or cultivating such resources.

Under Section (154) of MaCAA if a fishery within the IFCA District (to include a private or several fishery) is, will, or has the potential to damage a Marine Conservation Zone (MCZ), then it is the IFCA's statutory responsibility to ensure that that site is managed so as to ensure compliance with the relevant legislation.

In order to deliver these duties, IFCAs can introduce management measures, specifically the ability to make byelaws (under Section 156) to manage or restrict the several or private fishery rights. Importantly this can be done without the consent of the person enjoying those rights if the right is being exercised in relation to a protected site (Section 158).

In addition, IFCAs can apply for the right of a Several Order under the Sea Fisheries (Shellfish) Act 1967 for the establishment, improvement and the maintenance and regulation of a fishery for shellfish. The Poole Harbour Fishery Order 2015 is an example of this.

2.2.2 National Policy and Legislation

Southern IFCA is a Relevant Authority in the management of sites within the National Site Network designated under the Habitats Directive[5] and the Wild Birds Directive[6]. Prior to 2021, these sites were referred to as European Marine Sites and, although the original designations sit under the two pieces of European legislation outlined above, the land and marine aspects of the Habitats Directive and the Wild Birds Directive have been transposed into domestic law by **The Conservation of Habitats and Species Regulations 2017[7], as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019[8]**, which

[5] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML

[6] Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds.
http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en.pdf

[7] Conservation of Habitats and Species Regulations 2017
The Conservation of Habitats and Species Regulations 2017

[8] Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.
https://www.legislation.gov.uk/uksi/2019/579/contents/made

outlines how the National Site Network will be managed and reflects any changes required by EU Exit.

The National Site Network sites are in place to protect and support rare and threatened species and rare natural habitat types. Southern IFCA has a statutory responsibility to ensure that fishing activity does not damage, disturb or have an adverse effect on the wildlife and habitats for which these sites are legally protected. Any management introduced should contribute to furthering the conservation objectives of the site, ensuring the integrity of the site is maintained and that the site makes a full contribution to achieving the aims of the Directives. This includes the governance of the conservation interests of the Poole Harbour SPA when considering any aquaculture practices, current or future.

Section 28G of the **Wildlife and Countryside Act (WCA) 1981 (as amended)** defines 'section 28G authorities'[9], including Southern IFCA and NE, who have a duty to take reasonable steps, consistent with the proper exercise of their functions, to ensure compatibility of activity with the conservation and enhancement of SSSI and to further the conservation and enhancement of the flora, fauna or geological or physical features by reason of which the site is of special scientific interest. Southern IFCA therefore must consider the conservation and enhancement of the Poole Harbour SSSI when managing aquaculture within Poole Harbour, to include any proposals for leased grounds under 'The Order'.

The Marine Strategy Regulations 2010[10] implements the Marine Strategy Framework Directive (2008/56/EC) into UK law. This directive sets out a framework for achieving or maintaining Good Environmental Status (GES) in marine waters. The GES under the Marine Strategy Regulations 2010 refers to the desired condition of the marine environment, which is achieved when the seas are ecologically diverse, clean, healthy, and productive, while also allowing sustainable use of marine resources. The UK Marine Strategy Regulations 2010 require the UK to take the necessary measures to achieve or maintain GES through the development of a UK Marine Strategy. Southern IFCA, as a fishery body in the UK is required to take action to achieve or maintain GES in the District's waters. In the case of The Order, management should promote sustainable aquaculture which complements GES and contributes to the 11 qualitative descriptors for GES.

The Fisheries Act 2020[11] establishes the UK's framework for managing its fisheries, replacing the EU's Common Fisheries Policy (CFP). The Act enshrines in law the UK's commitment to sustainable fishing and supporting future generations of fishers, whilst allowing the marine environment to thrive. It provides a legally binding structure to protect and recover stocks, support a sustainable fishing industry and safeguard the environment. The Act outlines 8 Fisheries Objectives which set out the overall aims of the Act and creates a legal requirement for the UK's four national fisheries policy authorities to produce a Joint Fisheries Statement (JFS) which establishes how the objectives will be met. In accordance with the JFS, IFCAs are required to have regard to the Fisheries Act, the JFS and Fisheries Management Plans (FMPs), where

[9] Wildlife and Countryside Act 1981 (as amended)
https://www.legislation.gov.uk/ukpga/1981/69

[10] The Marine Strategy Regulations 2010
https://www.legislation.gov.uk/uksi/2010/1627/contents

[11] The Fisheries Act 2020
https://www.legislation.gov.uk/ukpga/2020/22/contents

required by guidance issued by the Secretary of State, or when undertaking a relevant function as delegated by the Marine Management Organisation (MMO). Management of The Order should, align with the Government's shared ambition under the JFS *"to continue delivering world class, sustainable management…"* in accordance with achieving, or contributing to the achievement of the 8 Fisheries Objectives.

The Environment Act (2021)[12] sets clear statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, waste and water, and includes a target to reverse the decline in species abundance by 2030. The Act designated the **25 Year Environment Plan (25YEP)**[13] to help the natural world regain and retain good health, with the **Environmental Improvement Plan 2023 (EIP)**[14], being the first revision of the 25YEP. IFCAs, as detached Arm's Length Bodies (ALB) to Defra, play a crucial role in the delivery of the EIP. Additionally, The Act places a requirement upon all public authorities to consider what they can do to conserve and enhance biodiversity. This Biodiversity Duty is intrinsically linked into the work that Southern IFCA deliver. In accordance with the Environment Act, 25YEP and EIP, Southern IFCA endeavour to evidence the role of aquaculture management in the collective delivery of the Government's vision to *"…help the natural world regain and retain good health…"*, following the commitment to *"…leave the environment in a better state for future generations..."* and *"…halt the decline of nature by 2030…"*.

Southern IFCA also endeavour to support and champion activities which offer support to meeting the **UK Net Zero Strategy**[15]**.**

[12] Environment Act 2021
https://www.legislation.gov.uk/ukpga/2021/30/contents
[13] 25 Year Environment Plan
https://www.gov.uk/government/publications/25-year-environment-plan
[14] Environmental Improvement Plan 2023
Environmental Improvement Plan 2023 - GOV.UK
[15] UK Net Zero Strategy
Net Zero Strategy: Build Back Greener - GOV.UK

2.3 Marine Conservation Designations within Poole Harbour

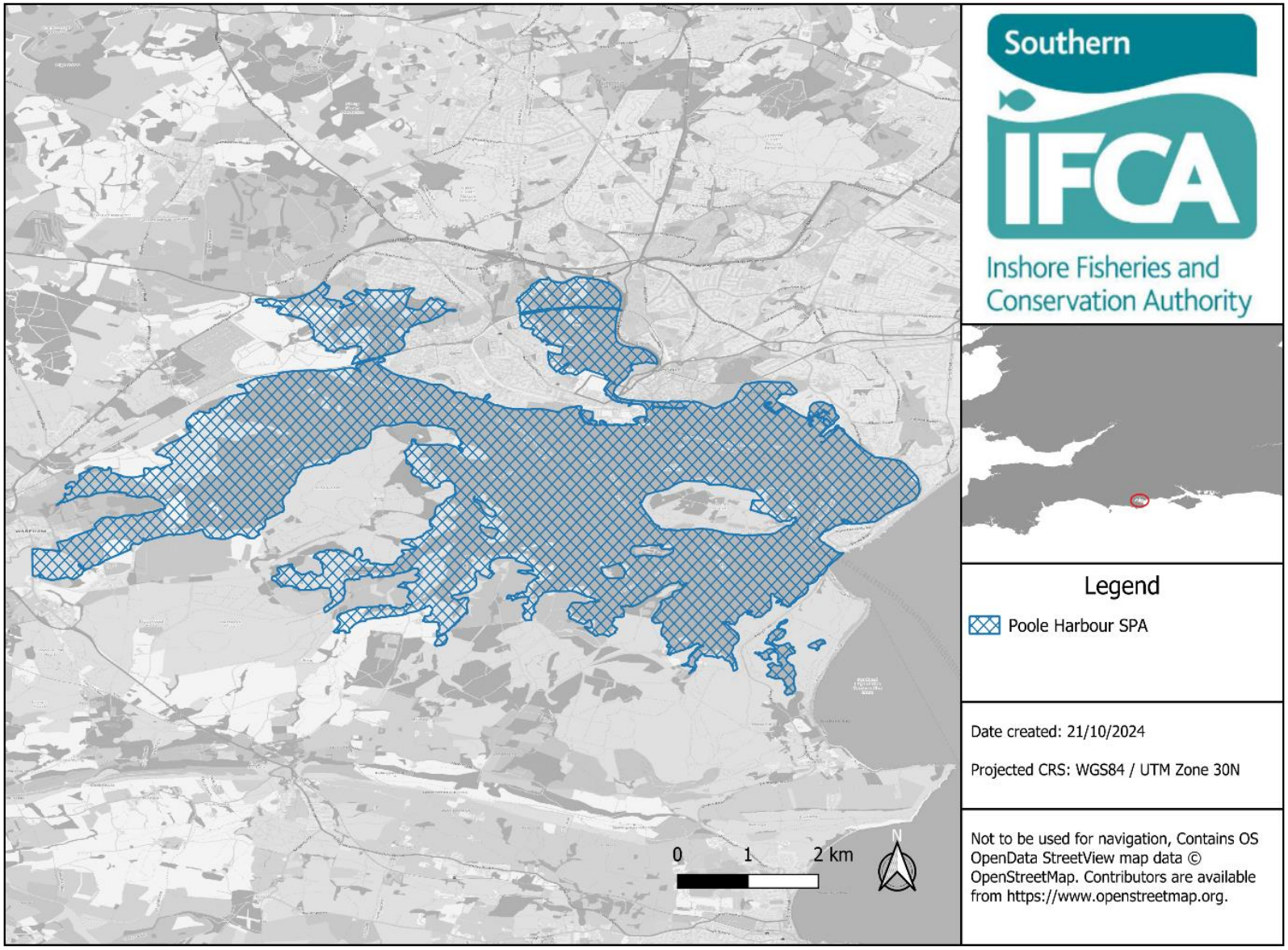
2.3.1 Poole Harbour Special Protection Area (SPA)

The Poole Harbour SPA qualifies under Article 4.1 of the EU Birds Directive by regularly supporting more than 1% of the Great Britain populations of five Annex 1 species. It also qualifies under Article 4.2 of the EU Birds Directive in that it regularly supports more than 1% of the biogeographic population of two regularly occurring migratory species not listed in Annex 1 and is used regularly by over 20,000 waterfowl (as defined by the Ramsar Convention) or 20,000 seabirds in any season. The species and associated habitats, which qualify Poole Harbour as a SPA, are provided in Tables 1 and 2. Map 1 shows the extent of the Poole Harbour SPA.

The conservation objectives for Poole Harbour SPA are, subject to natural change, to maintain or restore: (1) The extent and distribution of the habitats of the qualifying features; (2) The structure and function of the habitats of the qualifying features; (3) The supporting processes on which the habitats of the qualifying features rely; (4) The populations of the qualifying features; (5) The distribution of the qualifying features within the site.

Table 1: Qualifying features for Poole Harbour SPA
Common Shelduck (non-breeding) *Tadorna tadorna*
Pied Avocet (non-breeding) *Recurvirostra avosetta*
Black-tailed Godwit (non-breeding) *Limosa limosa islandica*
Mediterranean Gull (breeding) *Larus melanocephalus*
Common Tern (breeding) *Sterna hirundo*
Waterbird assemblage
Little Egret (non-breeding) *Egretta garzetta*
Eurasian Spoonbill (non-breeding) *Platalea leucorodia*
Sandwich Tern (breeding) *Thalasseus sandvicensis*

Table 2: Associated habitats for qualifying features	
Coastal lagoons	Mediterranean & thermo-Atlantic halophilous scrubs
Freshwater and coastal grazing marsh	Atlantic salt meadows (saltmarsh)
Spartina swards (saltmarsh)	Intertidal seagrass beds
Intertidal mixed sediments	Intertidal muds
Intertidal sand & muddy sand	Water column



Map 1: Poole Harbour Special Protection Area (SPA)

2.3.2 Poole Harbour Site of Special Scientific Importance (SSSI)

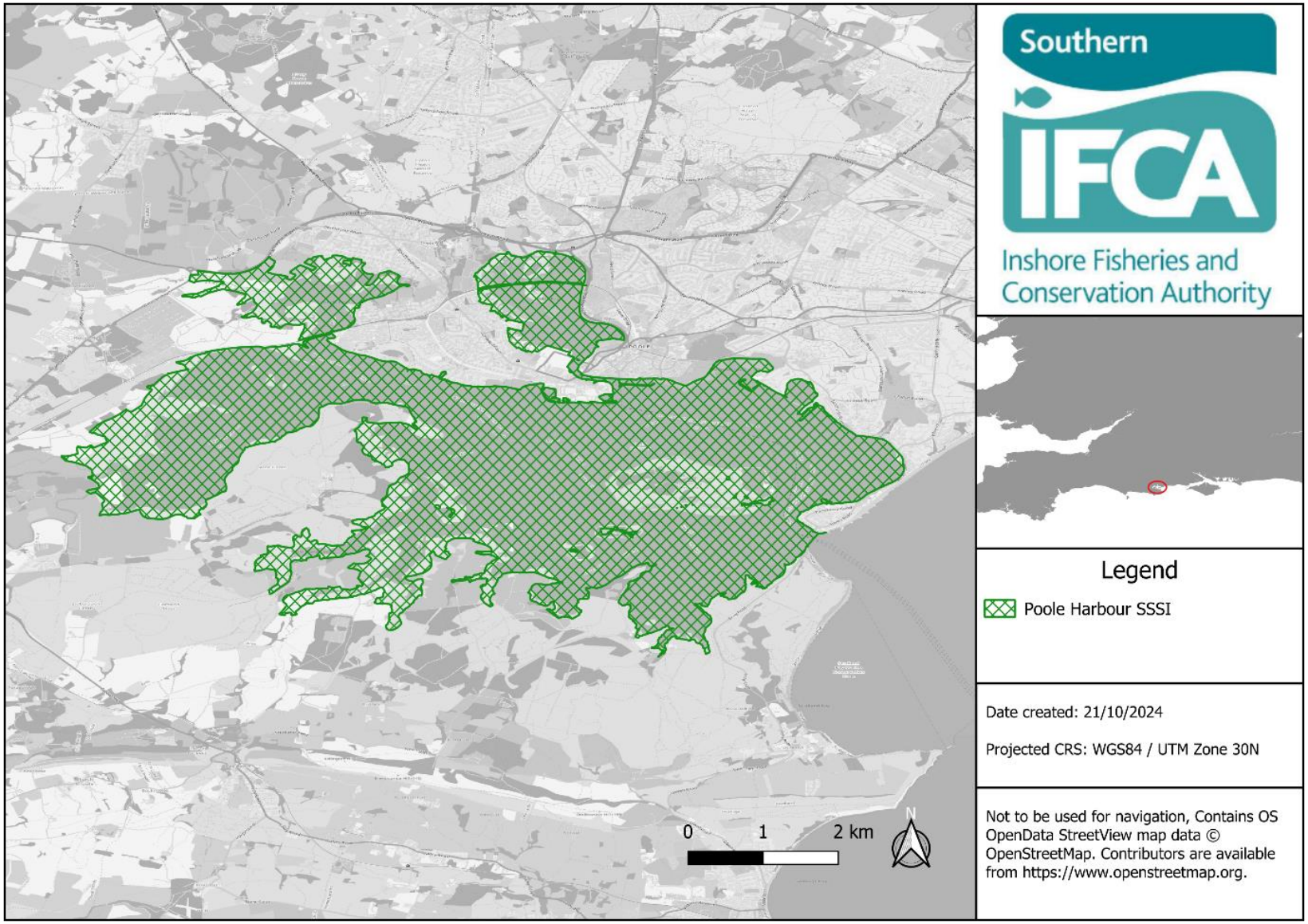
In 1990 Poole Harbour was notified as a SSSI. The qualifying features are listed in Table 3 and Map 2 shows the extent of the SSSI.

Table 3: Qualifying features for Poole Harbour SSSI
Estuarine habitats including marshes, mudflats and subtidal communities
Fringing terrestrial habitats including heathlands and grasslands
Species supported by the above-named habitats including breeding & wintering birds, lichens, rare invertebrates and the red squirrel *Sciurus vulgaris*

On the 24th May 2018 NE notified additional land, considered to be of special interest as part of the Poole Harbour SSSI. The extension encompassed four areas of additional land, the largest of which being subtidal estuarine open water below the Mean Low Water (MLW), which extends to the Harbour mouth in the east and west to where the estuary meets the rivers Piddle and Frome (Map 2). The other three areas of additional land include saltmarsh, wetland and supporting habitats around the fringes of Lytchett Bay and Holes Bay. All four areas have been included in the designation as they support estuarine habitats and/or wintering wildfowl and waders for which the site is designated. The area below MLW is also seen to support other features for which the site is designated including foraging habitats for breeding seabirds and subtidal benthic habitats (such as peacock worm (*Sabella pavonina)* and the eelgrass (*Zostera marina)*. The area is also included for coastal and marine geomorphological processes, as these are seen to be essential for the maintenance of estuarine habitats such as saltmarshes and intertidal mudflats.

In some locations within Poole Harbour, the estuarial and intertidal areas support the following important subtidal benthic habitats:

- **High-density beds of the Peacock worm *Sabella pavonina* -** Widespread within certain mid-stream areas of subtidal channels - These beds are of conservation interest as a habitat for other species. This species is not rare, but Poole Harbour is the best-known location for high-density bed formation.
- **The sponge *Suberites massa* -** This species has been recorded in a number of areas associated with artificial structures, for example in the Blackwater channel in Holes Bay and has been recorded as common in a restricted area in South Deep on the north-west side of Goathorn Point, associated with the American slipper limpet (*Crepidula fornicata)* shells.
- **Intertidal sediments -** These areas are a key estuarine habitat, which comprises a range of biotopes including areas of *Zostera marina*. No nationally scarce species or biotopes have been found within the intertidal sediments; however, the importance comes from the abundance and biomass of annelid worms and bivalve molluscs, which are key prey species for waterfowl.
- **Bird species -** Large areas of intertidal mudflats that lie below MLW provide an additional area of food resource for over-wintering waders and breeding water birds on certain tides. Areas of estuarial water below MLW are essential for fish-eating species to feed and rest and key roosting sites are found in saltmarsh areas across the Harbour. Common and Sandwich terns are part of the notified breeding bird interest of the SSSI and are known to forage within the open water of the Harbour and outside the Harbour entrance.

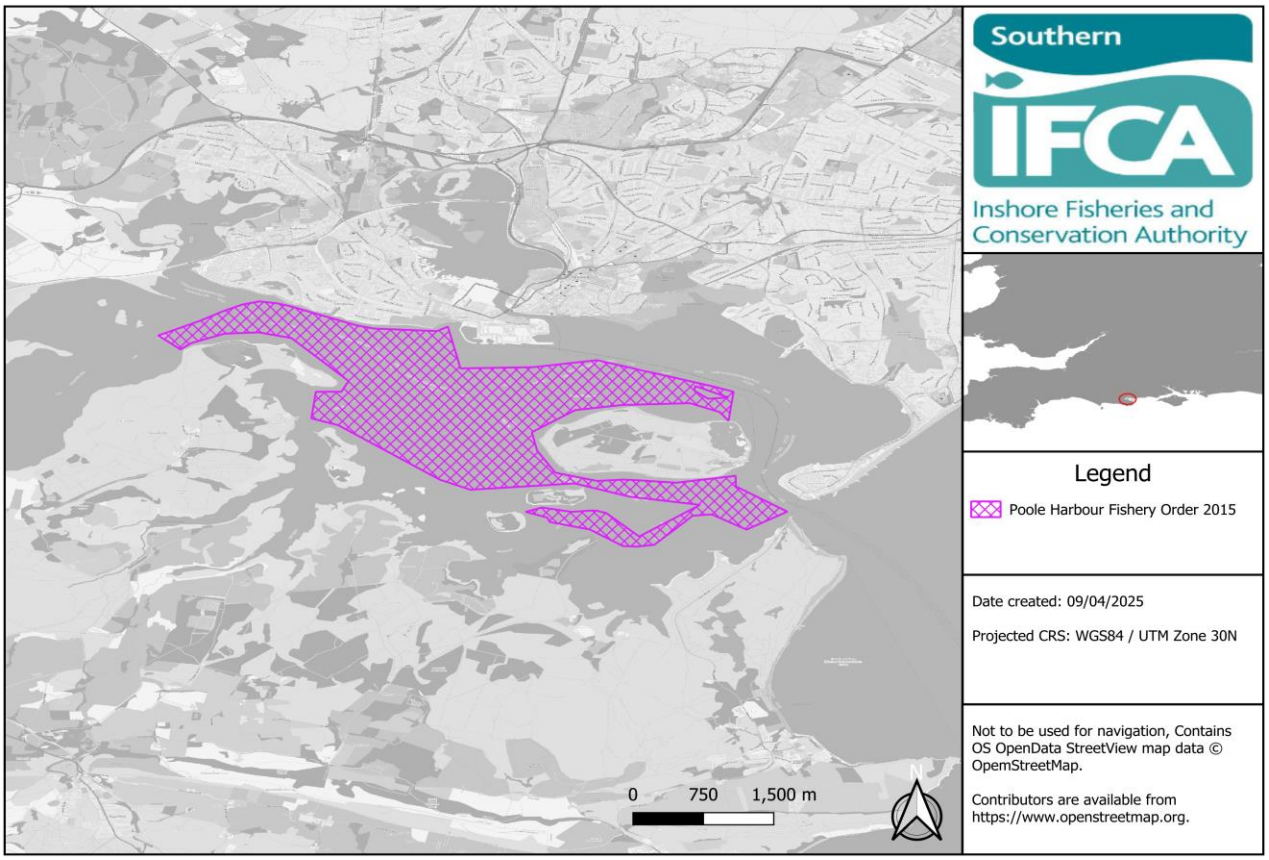


Map 2: Poole Harbour Site of Special Scientific Interest (SSSI)

3.0 The Poole Harbour Fishery Order 2015

In accordance with Section (1) of the Sea Fisheries (Shellfish) Act 1967, Southern IFCA manage aquaculture activity within a defined area of Poole Harbour under The Poole Harbour Fishery Order 2015 ('The Order'). The Order confers on Southern IFCA the right of several fishery for the cultivation of shellfish of any kind for a period of twenty years from the 1st July 2015. Leases are issued under The Order for a period of five years.

The Order covers an area of 837.8 hectares and allows for the cultivation of aquaculture species, namely 'shellfish' as defined in the MaCAA 2009 as "crustaceans and molluscs of any kind". The main species harvested on the lease beds are Pacific oysters and mussels however, in the past, native oysters, clam species and common cockle have also been farmed and cultivated in Poole Harbour. This definition provided in MaCAA allows Southern IFCA to retain flexibility for shellfish species that could potentially be the subject of future aquaculture activity within the Harbour.



Map 3: Poole Harbour Fishery Order 2015

There are a number of considerations for the management of aquaculture activity under The Order, linked to the status of Poole Harbour as an MPA, the species which are farmed, the use of Poole Harbour by other water users and the biosecurity of farmed shellfish, all underpinned by Southern IFCA's duties at a local and national level. The following sections outline each of these considerations.

3.1 Ensuring compatibility between aquaculture and MPA designations

The Southern IFCA aims to promote and manage aquaculture in Poole Harbour under The Order with well-structured and appropriate governance that enables Southern IFCA to meet marine nature conservation duties, develop the future potential for aquaculture practice, and seek to better balance the interests of stakeholders.

3.1.1 Poole Harbour SPA

In order to achieve compliance with statutory duties under the Habitats Directive (as detailed in Section 2.2.2 of this document), Southern IFCA produce a Habitats Regulation Assessment (HRA), which is an assessment of the potential impacts of the proposed aquaculture activities and any mitigating measures proposed by Southern IFCA in order to demonstrate compatibility with the Poole Harbour SPA. The HRA is developed in consultation with Natural England (NE) who provide formal advice to Southern IFCA on the conclusions of the HRA.

Management Plan 1 (Section 7.0 of this document) provides a summary of advice received from NE with regard to the Poole Harbour SPA since 2015. A summary response to this advice is provided by Southern IFCA and a description of management measures Southern IFCA have adopted to mitigate interactions between aquaculture operations and the Poole Harbour SPA.

The most recent HRA accompanying the Tranche 3 (2025-2030) allocation of leases can be found on the Southern IFCA website[16]. The conclusion of the HRA for the issuing of leases for Tranche 3 is that, based on the mitigation measures, in the form of provisions and management measures outlined in The Poole Harbour Several Order Management Plan 2015 (2025 revision), the Business Plan, the Biosecurity Plan and the lease for each leaseholder, the issuing of leases for 2025-30 under the Poole Harbour Fishery Order 2015 will not hinder the site from achieving its conservation objectives and as such will not have an adverse effect upon the integrity of the Poole Harbour SPA.

3.1.2 Poole Harbour SSSI

In the absence of a formal assessment process for SSSIs at the time The Order was introduced; in order to demonstrate compliance with statutory duties under the WCA (1981) (as detailed in Section 2.2.2 of this document), consideration of the potential interaction between aquaculture activity and the designated features of the Poole Harbour SSSI were recorded in the HRA. For the purposes of issuing Tranche 3 leases, SSSI assessments will continue to be considered under the HRA. **Management Plan 2** in Section 7.0 of this document provides a summary of the advice received from NE since 2015.

To coincide with the extension of the SSSI in 2018, a joint Site Management Statement (SMS)[17] for Poole Harbour was formalised in 2018. The SMS is a public statement, which was prepared, jointly by Southern IFCA and NE in order to outline the management position in relation to fishing activity (to include aquaculture) operating within the Poole Harbour SSSI expansion. **Management Plan 2** in Section 7.0 of this document provides a summary of the advice received since 2018 and the management measures taken by Southern IFCA in response.

[16] Poole-Harbour HRA 2025 - 2030

[17] Document available from Southern IFCA on request

3.1.3 Poole Harbour RAMSAR Site

Management Plan 3 in Section 7.0 of this document provides a summary of advice received from NE with regard to the Poole Harbour RAMSAR site since 2015 and a summary response to this advice provided by Southern IFCA.

3.1.4 Natural England Formal Advice

Formal Advice was sought from Natural England on the Habitats Regulations Assessment for the issuing of leases under Tranche 3 on the 24th April 2025. Formal Advice was received on 13th May 2025 with Natural England agreeing with the conclusion made in the HRA of no adverse effect upon the integrity of the Poole Harbour SPA, SSSI or Ramsar Site.

3.2 Management of species subject to aquaculture activity

3.2.1 Pacific Oysters

Pacific oysters (*Magallana gigas*) have been farmed in Poole Harbour prior to the site being designated as a SSSI in 1990. Within the grounds leased by Southern IFCA there are a number of beds on which *M. gigas* are currently farmed, in a process in which the species is grown from spat at a facility before being laid directly on the seabed once individuals have reached a certain size.

The Pacific oyster is defined as an invasive non-native species and is categorised as a 'medium risk' under the Water Framework Directive by the UK Technical Advisory Group and a 'moderate risk' by the GB Non-Native Species Secretariat. **Management Plan 4** in Section 7.0 of this document provides a summary of advice received from NE with regard to the farming of *M. gigas* within Poole Harbour.

Monitoring of Pacific oyster populations in Poole Harbour has been reviewed to inform this Management Plan and the need for future monitoring. This review has looked at the most recent survey data, collected in 2021-2022 as part of a study between Southern IFCA and the University of Southampton, and historic data from studies monitoring the location, extent and size frequency distribution of wild populations of Pacific oyster. In addition, data from monitoring in Poole Harbour has been compared to wild population monitoring from Southampton Water where no aquaculture inputs exist. The report is available on the Southern IFCA website[18] and a summary of the outcomes and determinations for any additional monitoring are provided in **Management Plan 4** in Section 7.0 of this document.

3.3 Ensuring compatibility between aquaculture and other water users

Working in partnership with Poole Harbour Commissioners (PHC), a risk assessment has been undertaken in order to manage and mitigate the interactions between aquaculture practice and other water users operating within an area of Poole Harbour designated as an area for personal

[18] Pacific-Oyster-Monitoring-Report

watercraft. **Management Plan 5** in section 7.0 of this document provides details on the management measures Southern IFCA implement in order to mitigate interactions.

3.4 Ensuring compatibility between aquaculture and biosecurity

Southern IFCA operates as the Aquaculture Production Business (APB) for The Order. The Authorisation issued to Southern IFCA by Cefas permits aquaculture activity to take place within the footprint of The Order and stipulates reporting requirements for shellfish movements.

Southern IFCA has produced a Biosecurity Measures Plan (2025 Version) covering the full extent of The Order. The document outlines the types of activities occurring in Poole Harbour and the potential biosecurity risks associated with these activities, detailing mitigation through a Biosecurity Risk Assessment which is designed for all activities under The Order and applied by all leaseholders. The document also provides information on the process for monitoring shellfish movements and roles/responsibilities for any unforeseen events such as a large-scale mortality. This is a standalone document[19].

The IFCA work with the Centre for Environment, Fisheries and Aquaculture Science (Cefas) to monitor lease beds and facilitate inspections, including an annual inspection by the Cefas Fish Health Inspectorate (FHI) at which point the Biosecurity Measures Plan is reviewed by Cefas along with annual shellfish movement data collated by Southern IFCA. Southern IFCA have a remit to hold information on species which have historically been and are currently being cultivated on lease beds. Requirements on the leaseholder and the role of Southern IFCA in the process of reporting shellfish movements is outlined in the **Shellfish Movement Guidance Document** (Annex 2) which is provided to all leaseholders. The requirements on leaseholders for biosecurity processes are set out in the conditions of the lease issued by Southern IFCA.

Southern IFCA collates the following information from shellfish movements:

- Sources or destinations of shellfish movements;
- Date the movement took place;
- The species and life stage of transported animals;
- Total number of individuals;
- Total (kg) or average (g) weight;
- Total value (£).

3.5 Supporting delivery of national legislation & policy

The management of The Order under this document and the lease conditions, in line with the outputs of the HRA for the issuing of leases (current version 2025-2030), contributes towards supporting the delivery of national legislation and policy. The Government vision for the marine environment, set through the frameworks provided by The Environment Act 2021, 25YEP and

[19] Document available from Southern IFCA

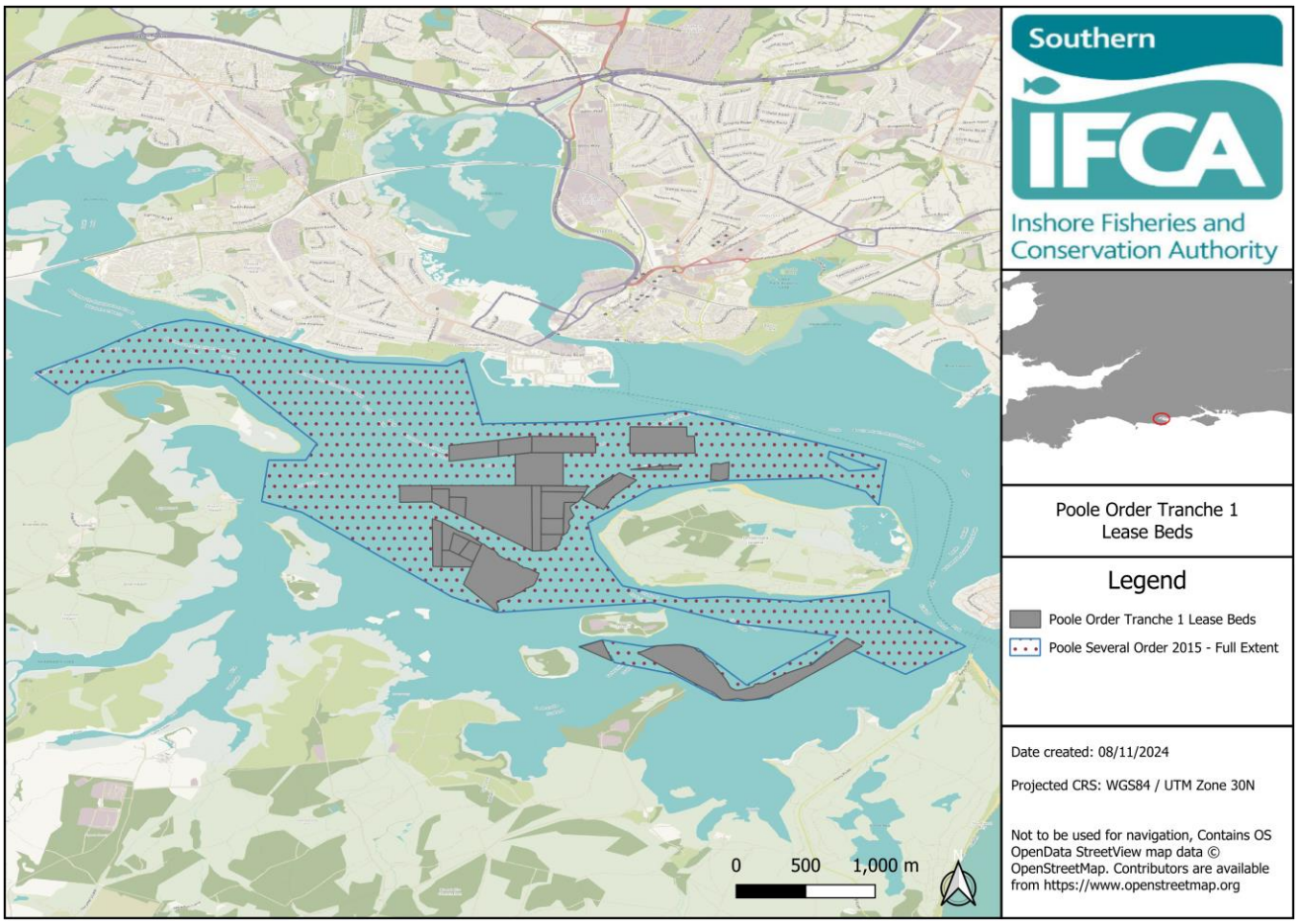
EIP, along with the Marine Strategy Regulations 2010, the Fisheries Act 2020 and the UK Net Zero Strategy are all demonstrably supported by aquaculture activity under The Order.

In order to demonstrate this contribution to supporting national delivery, **Management Plan 6** summarises how activity and management measures under The Order are relevant to each of these national policies/legislations with additional detail provided in Annex 3. Overall, the contributions to each of these policies/legislations is in accordance with the Southern IFCA Annual Strategy and the work of Southern IFCA in shaping inshore fisheries and conservation management to support the UK Government's vision for *"clean, healthy, safe, productive and biologically diverse oceans and seas"* in accordance with the UK Marine Policy Statement.

4.0 Management under Tranche 1: 2015-2020

In 2015, under The Order, the first tranche (T1) of lease beds were allocated to nine companies or individuals for a period of five years, under the Terms of the Lease of Right of Several Fishery of Shellfish Laying in Poole Harbour. Under these Terms the T1 leases terminate on the 30th June 2020.

The footprint of the T1 beds (Map 4) replicated the lease bed allocations under the former Poole Fishery Order 1985 (which expired in 2015). Under T1, 31 lease beds were sub-leased from Southern IFCA with the consent of the Commissioners of Crown Lands under the provisions of the Southern IFCA lease from the Crown.



Map 4: Tranche 1 Lease Beds (2015-2020)

5.0 Management under Tranche 2: 2020-2025

In 2020, under The Order, the second tranche (T2) of lease beds were allocated to six companies or individuals for a period of five years, under the Terms of the Lease of Right of Several Fishery of Shellfish Laying in Poole Harbour. Under these Terms the T2 leases terminate on the 30th June 2025.

5.1 T2 Lease Bed Reallocation Plan

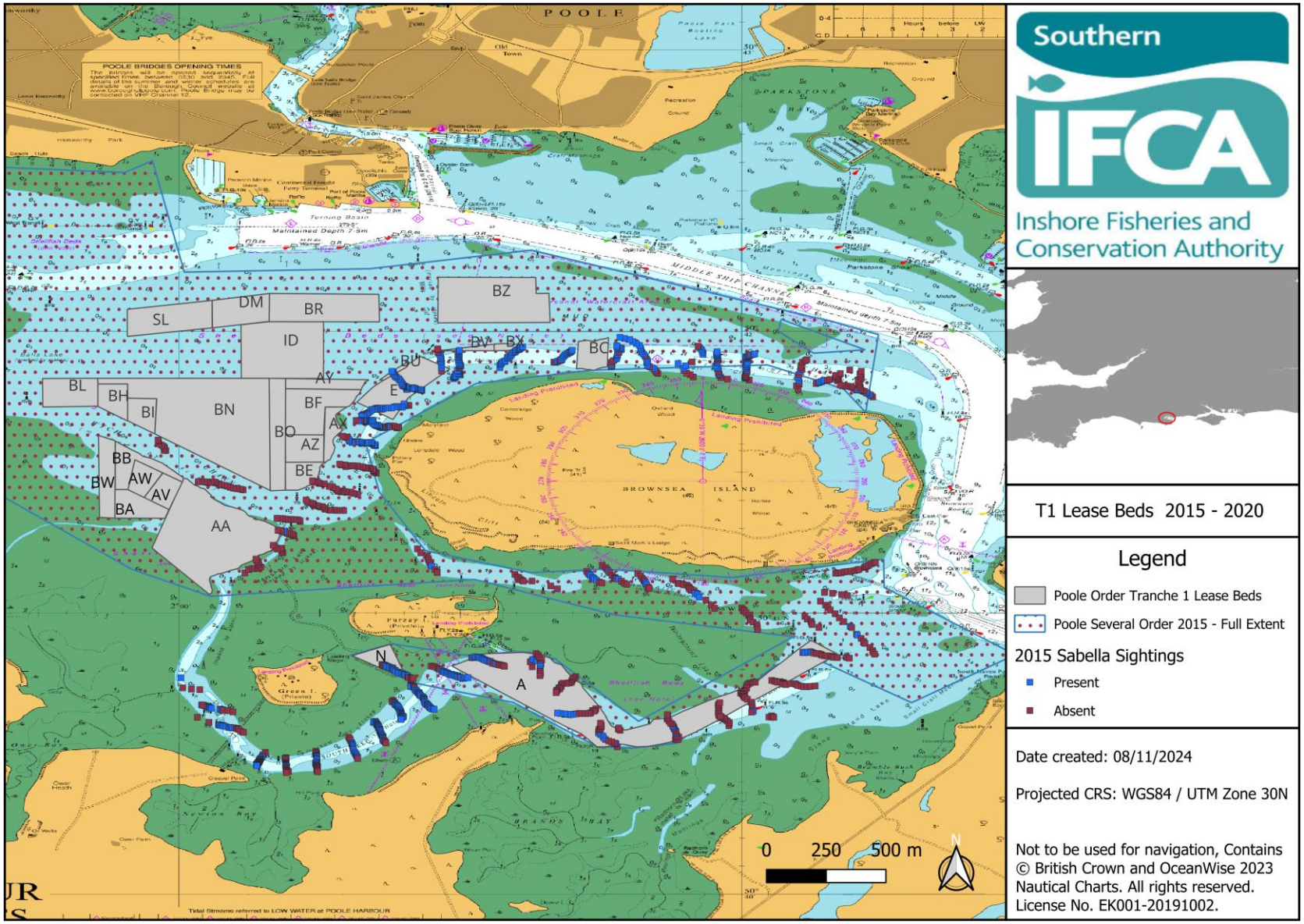
Following the Poole Harbour SSSI extension in 2018; below MLW, encompassing subtidal estuarial waters and lower shore intertidal mudflats, which support subtidal benthic habitats such as *S. pavonina* and intertidal sediments; advice from NE was that no aquaculture is to be allowed to operate in areas of *S. pavonina* beds and in areas of associated sponge communities including *Suberites massa*. In addition, where lease beds overlay areas of intertidal sediments the impact of aquaculture must be considered to ensure that there is no adverse effect on the integrity of the site.

In direct response to the advice received by NE, as documented in Section 7.1 of the Site Management Statement for Poole Harbour which was formalised in 2018 between Southern IFCA and NE[20], the T2 Lease Bed Reallocation Programme was implemented, through which Southern IFCA closed three of the T1 lease beds highlighted by NE to be affected by *S. pavonina.* The total area of these closures equated to 32.4 hectares.

In addition, following Southern IFCAs undertaking of a *Sabella* survey (Map 5) in the vicinity of the Poole Harbour T1 lease beds:

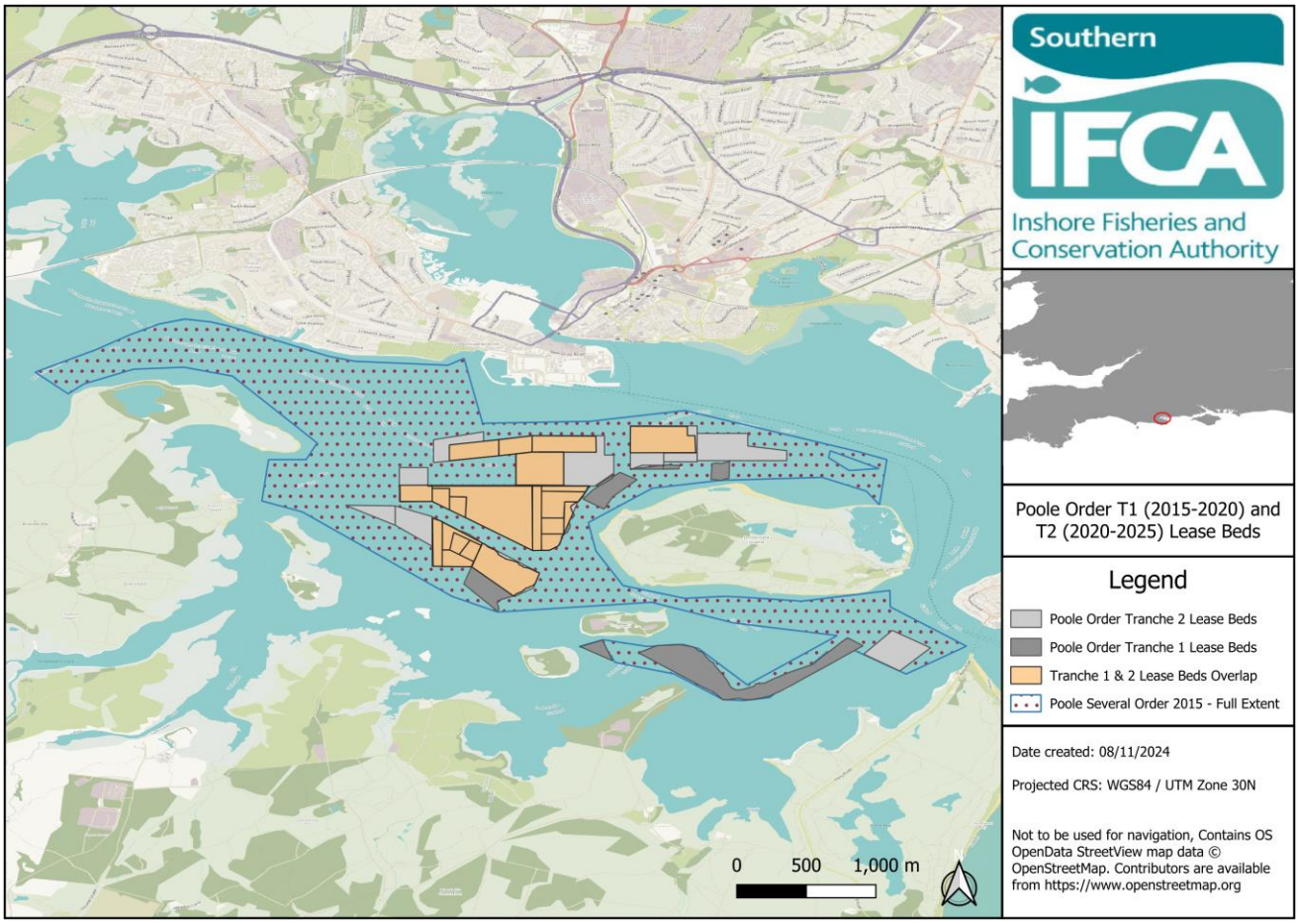
- One other T1 lease bed required full closure and reallocation (to coincide with the second tranche of lease bed allocation), due to the presence of *S. pavonina*. The total area equated to 9.8 Hectares.
- Two T1 lease beds required part closure and reallocation (to coincide with the second tranche of lease bed allocation), due to the presence of *S. pavonina.* The total area equated to 1.77 Hectares;
- One T1 lease bed required part closure and reallocation due to its location on intertidal sediments. The total area equated to 7.09 Hectares.

[20] Document available from Southern IFCA on request

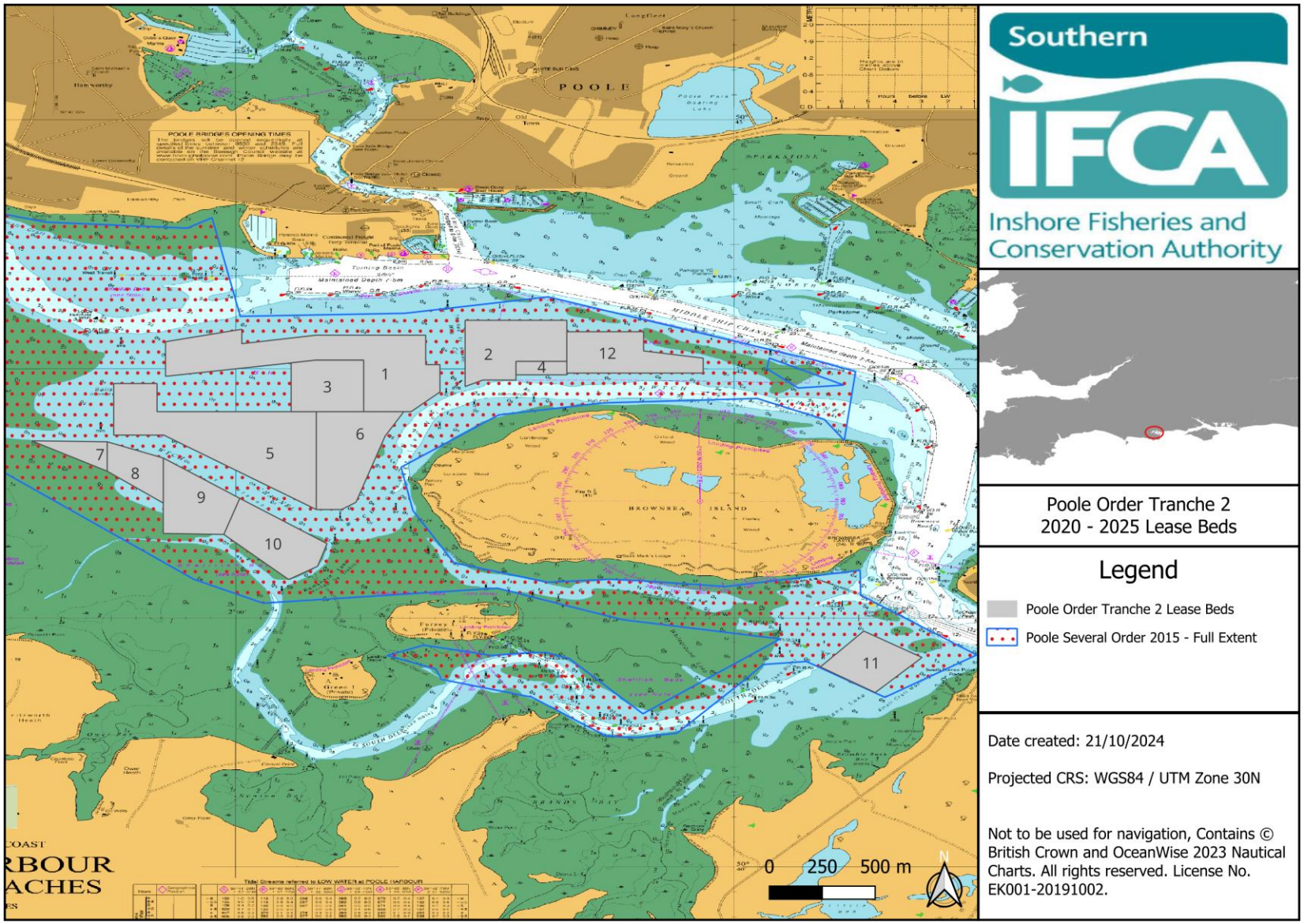


Map 5: Presence and absence of Sabella pavonina in Poole Harbour (specific to the vicinity of T1 lease beds)

Map 6 overlays the T2 Lease beds with the T1 lease beds, in order to demonstrate where T1 lease beds were closed and reallocation occurred as a result of the presence of high *S. pavonine* densities. Map 7 shows the footprint of the resulting T2 lease beds.



Map 6: The footprint of Tranche 1 (2015-2020) vs. Tranche 2 (2020-2025) lease beds



Map 7: Tranche 2 Lease beds (2020-2025)

6.0 Management under Tranche 3: 2025-2030

6.1 T3 Lease Application Process

The third tranche (T3) of lease bed allocation will begin on the 1st July 2025 and expire on the 30th June 2030.

6.1.1 Expressions of Interest

In December 2024 Expressions of interest (EOI) were invited from T2 leaseholders; the basis of which was to enable Southern IFCA to determine whether T2 leaseholders intended to apply for lease grounds under T3 of lease bed allocation. In addition, the EOI sought to provide confirmation that any T2 leaseholders wishing to apply for a T3 lease had a full understanding of the following:

1. Of the terms under which a T3 application would be considered;

    a) that the annual fee based upon price per hectare may be subject to change,

    b) the requirement for the provision of documentation specified by the Authority, including but not limited to a Business Plan for the period 2025-2030 and an End of T2 Lease Report,

    c) that there may be a monetary fee required at the point of application,

    d) that applications will be considered in line with the Management Plan for The Order, which will be updated for the 2025-2030 period, and in accordance with a Habitats Regulations Assessment for the issuing of leases under The Order, which will be subject to the seeking of Formal Advice from Natural England.

2. The timelines for application.

6.1.2 Application Criteria

Consideration of the allocation of lease beds under T3 is subject to the production of the documentation outlined in this section at the time of application. Southern IFCA invited applications between the 13th January and the 10th March 2025.

6.1.2.1 A Business Plan 2025-2030

A comprehensive Business Plan was required to be provided at the point of application. Reference to the following had to be included in the Business Plan:

i. **Executive summary** providing an overview of the proposed business and plans.

ii. **Company structure** providing details of the structure of any company related to the application.

ii. **Operational Activities**
    a. Details of leaseholder and any other personnel involved in aquaculture operations including responsibilities and relevant qualifications.
    b. Specification of **vessel(s)**, **platforms** and **fishing gear** to be used including intended activities for each and relevant PHC vessel number(s);

iii. **Methodology** section to include:
   a. The target **species** to be grown and harvested including a rationale of why this species;
   b. Details of **equipment** used in both laying of seeds and harvesting of seeds (noting that the proposed activity **must not** place any structure on the seabed).
   c. Details of any other equipment used in the aquaculture operations for each species.
   d. The **projected quantities** of each species to be broken down into annual forecasts for the next 5 years (2025 to 2030):
      - kg/year seeding and harvesting forecast; and
      - Identification of any variables which may compromise achievement of annual forecasts.

iv. **Financial Forecast**
   a. **Funding** and demonstrable sources of funding including relevant operation **investments**.
   b. Details of **supplier** of seeds for laying;
   c. Details of **buyers/target market** of harvested product;

v. **Safety**
   a. A **Safety Plan** to demonstrate that appropriate safety measures are in place for the proposed activity;
   b. To provide evidence of permissions granted by Poole Harbour Commissioners (PHC) for the use of a commercial vessel within Poole Harbour, under the **Registration of Small Commercial Craft**[21], registration via https://phc.co.uk/webforms/register/

vi. **Biosecurity Plan** detailing the processes by which the lease bed operator will ensure that their activities are consistent with best practice and the legal requirements.
   a. Details of designated **Biosecurity Manager**, other **relevant contacts** and **staff training**.
   b. A **Risk Assessment** to outline measures taken to mitigate biosecurity risks.

6.1.2.2 End of Tranche 2 Lease Report

A comprehensive End of T2 Lease Report was also required to be provided at the point of application, with reference to the following to be included:

i. **Summary of business operations** under the T2 lease.
   a. Leaseholder details and summary of **Business Operations** in Poole Harbour
   b. Summary of T2 **Aquaculture Operations** including any Business Plan changes.

ii. **Tranche 2 Results**
   a. Projected Forecasts
      i. Whether projected seeding and harvesting forecasts were met throughout Tranche 2 and details of annual seeding and harvesting quantities outlining how these related to forecasts

[21] '*…For the purpose of promoting or securing conditions conducive to the… safety of navigation…persons and property in the harbour, PHC seek to ensure that all commercial craft operating within Poole Harbour are properly maintained, equipped and manned and used only for the purposes for which they are capable...*' Extract taken from the General Direction – Registration of Small Commercial Craft.

ii. Whether there were any unexpected changes to forecasts
iii. Details of any mitigation measures employed in relation to changes in forecasts,
iv. Whether any changes in seeding or harvesting resulted in changes to aquaculture practices within the lease period
v. Whether there were any changes which have influenced future aquaculture operations

b. Suppliers and Markets
   i. Which suppliers were used during the lease period
   ii. Whether any changes to suppliers were required
   iii. A summary of all target markets used in the lease period including depuration facilities and companies involved in the supply chain process
   iv. Whether any changes to markets, depuration facilities or other companies involved in the supply chain process were required during the lease period

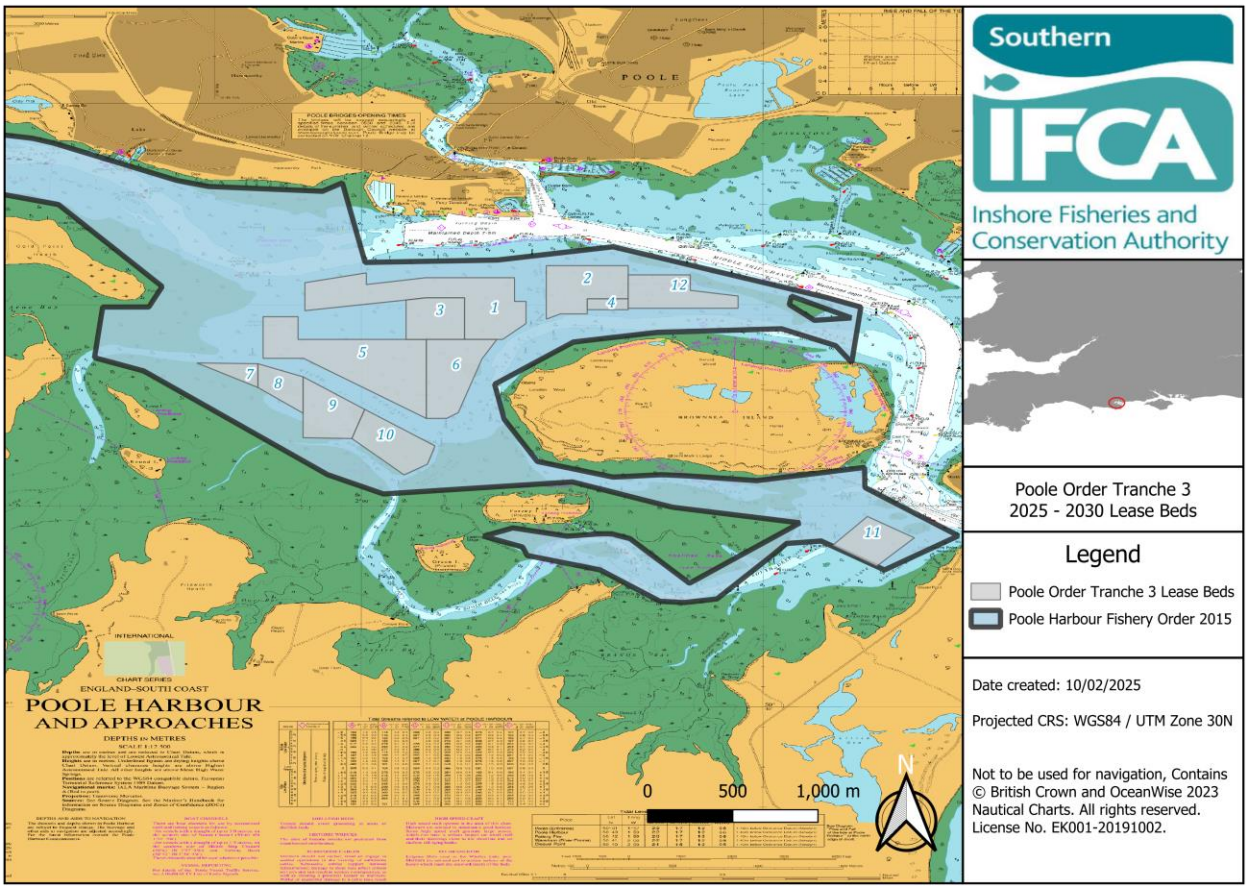
c. Future Mitigations
   i. Any outcomes from the T2 lease period which have influenced future aquaculture practices

6.2 T3 Lease Bed Allocation

The Authority considered the exploration of a Lease Bed Expansion Programme following T2. Subsequently, the Authority considered that this programme was not in a position to be progressed, due to non-compatibility of additional lease bed allocations with SPA and SSSI objectives as well as a number of factors specific to Poole Harbour. In order to re-confirm this position for T3, an analysis was carried out on any areas within the footprint of The Order where lease ground is not currently located. Taking into account the designation of Poole Harbour as an SPA, SSI and Ramsar Site, associated designated features/supporting habitats and the Southern IFCA's relevant legal duties, the location of wild fisheries, the location of other Harbour activities, navigation, management under other Southern IFCA byelaws and input from aquaculture operators on the suitability of different seabed areas from discussions under the T2 Lease Bed Reallocation Programme and input on aquaculture practices, it was determined that there are currently no suitable areas for additional lease ground to that established under T2. As a result, Southern IFCA is not pursuing a lease bed expansion programme for T3. The position on the suitability of this programme will be reviewed in line with the Tranche 4 lease bed allocation in 2030.

The footprint of the T3 lease beds (Map 8) replicates the lease bed allocations under T2. There are 12 lease beds sub-leased from Southern IFCA, full detail of each of these 12 lease beds is provided in Annex 1.

Consideration of lease allocation under T3 is subject to applicants meeting the criteria detailed in this Management Plan. Following submission of relevant documentation, all applicants will be subject to an assessment undertaken by Southern IFCA. This process will be carried out with each application being considered on its own merits, and Southern IFCA reserve the right to consider the proposals contained within the required documentation in accordance with their statutory responsibilities. These duties are detailed in Section 2.2 of this document.



Map 8: Tranche 3 Lease beds (2020-2025). More detailed charts and coordinates for each bed are available in Annex 1

6.3 Conditions on Lease Holders under Tranche 3

Each leaseholder is managed under the terms of a 'Lease of the Right of Several Fishery of Shellfish Laying'. The lease agreement documents the provisions and management measures that the Lessee must observe. These may be general conditions, or specific to individual lease beds and may include, but are not limited to:

a) The requirement for leaseholders to use and manage the lease beds in accordance with the provisions submitted in the lease holders Business Plan;
b) Restrictions on the removal of shellfish, to include compliance with minimum conservation reference sizes and the identification of persons permitted to remove shellfish;
c) Compliance with species-specific measures, such as measures specific to the farming of Pacific oysters;
d) Compliance with vessel length requirements;
e) The requirement for leaseholders to specify in writing any proposed changes in new Business Plan operations, including new aquaculture methodologies and species, a minimum of 8 weeks prior to the intended implementation of the proposed changes, to enable Southern IFCA to ensure compatibility of methodologies with the conservation objectives and biosecurity objectives of the site;
f) Compliance with temporal or spatial measures, in order to reduce water user interactions in Poole Harbour;

g) Compliance with temporal or spatial measures, in order to mitigate against interactions between conservation objectives of the SPA and the specific methodologies employed by leaseholders;
h) The requirement for leaseholders to mark and maintain the limits of lease bed boundaries;
i) Compliance with any issues detailed in the HRA within a given timeframe;
j) The requirement for leaseholders to facilitate inspections;
k) The requirement for leaseholders to provide information to Southern IFCA in relation to shellfish movements;
l) Requirement for all relevant leaseholder(s) who relay shellfish from the wild fishery in Poole Harbour to provide documentation and notify Southern IFCA prior to undertaking any activity, in line with conditions specified in the lease;

Leaseholders will be required to comply with all conditions outlined in the lease issued by the Authority. These conditions may be specific to a particular area of lease ground. Any leaseholder that contravenes any conditions may, at the discretion of the Authority, have the lease revoked and any lays shall return to the possession of the Authority.

6.3.1 Dispensations

The Authority, in its sole discretion, may consider issuing a dispensation, following an application made in writing to The Authority, from the leaseholder. Leaseholders may apply for dispensations for the following purposes:

a) The replacement of a Main Vessel;
b) The use (to be time-limited and activity specific) of an Ancillary Vessel;
c) The replacement of an Ancillary Vessel;
d) The removal of shellfish less than the MCRS specified in the lease.

6.3.2 Compliance with Conditions

Under Section (166) of the Marine and Coastal Access Act 2009, an Inshore Fisheries and Conservation Officer (IFCO) has the powers to enforce any provision made by or under Section 1 of the Sea Fisheries (Shellfish) Act 1967 conferring the right of regulating a fishery and whilst enforcing The Order, has common enforcement powers. Any person operating under The Order is subject to the provisions under section 292 of MaCAA (2009).

Southern IFCA Officers may monitor the area covered under The Order at any time and formal inspections of areas leased will be conducted as appropriate with additional inspections forming part of routine compliance patrols of the Harbour.

7.0 Management Plans

<table>
<tr><th colspan="4">Management Plan 1: Aquaculture and the Poole Harbour SPA Designation
The most recent HRA, completed for the T3 issuing of leases for 2025-2030, can be found on the Southern IFCA website[22]. This updated version of the HRA considers the current state of aquaculture activity in Poole Harbour and provides the rationale and supporting evidence for the proposed management measures under T3.</th></tr>
<tr><td rowspan="3">Disturbance caused by human activity</td><td colspan="3">Frequency, duration and/or intensity of disturbance affecting foraging and roosting overwintering waterbird assemblage, avocet, black-tailed godwit, shelduck and little egret should not reach a level which significantly affects the feature.</td></tr>
<tr><td>NE Advice (2015)</td><td>Southern IFCA Response (2015)</td><td>Management Measures</td></tr>
<tr><td>“…it cannot be dismissed that boat movements used for aquaculture together with other disturbance factors would not cause a significant disturbance to the features of the SPA when taking place in proximity to key feeding and roosting habitats. Aquaculture activity could cause noise and visual disturbance (either alone or in combination with other plans and projects) to the features listed above when taking place at key times of the year for the overwintering birds and in proximity to important feeding and roosting sites…”.</td><td>The extent of The Order excludes areas designated as ‘Bird Sensitive Areas’ in the Poole Harbour Aquatic Management Plan[23] to avoid disturbance to bird species during key sensitive periods. The majority of these areas are also closed to shellfish dredging and hand raking through the Southern IFCA byelaw ‘Prohibition on using or carrying a shellfish dredge, scoop or handrake in certain areas of Poole Harbour’* ensuring that disturbance in these areas is further minimised. Existing aquaculture activity in the Harbour also does not take place within these defined areas.

*The Byelaw applicable in 2015 has since been replaced by The Poole Harbour Dredge Permit Byelaw and the Poole Harbour Hand Gathering Byelaw</td><td><u>Relevance to the extent of The Order (2015):</u>
No action required

<u>Relevance to T1 lease beds (2015-2020):</u>
No action required

<u>Relevance to T2 lease beds (2020-2025):</u>
Based on NE formal advice for the HRA for the issuing of leases in 2020 (updated Feb 21 following receipt of advice in Dec 20), an evidence package was developed which considered specific measures for lease beds 7, 8 and 12 on the basis that they were newly introduced beds for T2 and had not previously been subject to any aquaculture activity. This was a seasonal and temporal restriction on Lease Bed 12 and a seasonal restriction on Lease Beds 7 & 8, reported through evidence packages annexed to the 2020 HRA.

<u>Relevance to T3 lease beds (2025-2030):</u>
For all lease beds, a seasonal & temporal restriction is implemented of no activity between 18:00 and 06:00 for the months of November to March inclusive. This ensures that all activities which may be undertaken (cleaning, seeding, harvesting) are occurring when there is no risk to rafting species such as red-breasted merganser & goldeneye, and aligns with management (agreed by NE through Formal Advice as appropriate mitigation) applied to the wild dredge fishery.</td></tr>
<tr><td rowspan="3">Extent and distribution of supporting non-breeding habitat</td><td colspan="3">The extent and distribution of suitable habitat which supports overwintering waterbird assemblage, avocet, black tailed godwit, shelduck and little egret for all stages of the non-breeding period (moulting, roosting, loafing and feeding) is maintained.</td></tr>
<tr><td>NE Advice (2015)</td><td>Southern IFCA Response (2015)</td><td>Management Measures</td></tr>
<tr><td>“…eelgrass beds within the intertidal sediment communities in Poole Harbour are known to support fish eating species such as red breasted mergansers as well as providing a food source for dark bellied Brent geese. Physical damage could occur from laying of shellfish and structures</td><td>The extent of The Order excludes the eelgrass beds in the Harbour. These beds are protected from bottom towed fishing gear and hand gathering under the Southern IFCA byelaws ‘Bottom Towed Fishing Gear Byelaw*’ and ‘Prohibition of Gathering (Sea Fisheries Resources) in Seagrass Beds Byelaw’ respectively. Aquaculture activity currently</td><td><u>Relevance to the extent of The Order (2015):</u>
No action required

<u>Relevance to T1 lease beds (2015-2020):</u>
No action required

<u>Relevance to T2 lease beds (2020-2025):</u></td></tr>
</table>

[22] Poole-Harbour HRA 2025 - 2030

[23] https://www.phc.co.uk/wp-content/uploads/2025/02/Poole-Harbour-Aquatic-Management-Plan-February-2025-Amendments.pdf

	support aquaculture on intertidal sediment communities including eelgrass beds. In addition, shallow inshore waters provide important feeding and roosting habitats, some aquaculture practices could potentially have an impact on the extent of this habitat e.g. where floating structures are causing a loss in the extent of the habitat..."	taking place in Poole Harbour does not occur over this feature. ** The Bottom Towed Fishing Gear Byelaw has since been replaced by The Bottom Towed Fishing Gear Byelaw 2016 and Southern IFCA have developed the Bottom Towed Fishing Gear Byelaw 2023 which proposes increases to the prohibited areas for eelgrass for BTFG within Poole Harbour. The BTFG Byelaw 2023 is currently in the process of being reviewed by MMO/Defra.*	Methodologies in Business Plans screened and assessed to ensure floating structures are not an intended practice. Based on NE formal advice for the HRA for the issuing of leases in 2020 (updated Feb 21 following receipt of advice in Dec 20), an evidence package was developed which considered specific measures for lease beds 7, 8 and 12 on the basis that they were newly introduced beds for T2 and had not previously been subject to any aquaculture activity. This was a seasonal and temporal restriction on Lease Bed 12 and a seasonal restriction on Lease Beds 7&8, reported through evidence packages annexed to the 2020 HRA. **Relevance to T3 lease beds (2020-2025):** Methodologies in Business Plans screened and assessed to ensure floating structures are not an intended practice. For all lease beds, a seasonal & temporal restriction is implemented of no activity between 18:00 and 06:00 for the months of November to March inclusive. This ensures that all activities which may be undertaken (cleaning, seeding, harvesting) are occurring when there is no risk to rafting species such as red-breasted merganser & goldeneye, and aligns with management (agreed by NE through Formal Advice as appropriate mitigation) applied to the wild dredge fishery.
Extent and distribution of supporting breeding habitat	*The extent, distribution and availability of breeding habitat which supports common tern, sandwich tern and Mediterranean gull for all stages of their breeding cycle (courtship, nesting and feeding) is maintained.*		
	NE Advice (2015)	**Southern IFCA Response (2015)**	**Management Measures**
	"…shallow inshore waters provide key feeding habitat for breeding common and sandwich terns and Mediterranean gull. Some aquaculture practices could potentially have an impact on the extent of this habitat e.g. where floating structures area causing a loss in the extent of the habitat..."	Shallow inshore waters will be included within the extent of The Order however areas where species are seen to preferentially feed will be assessed against the positioning of individual lays and proposed activity within those lays. Lays which are to be included in the Tranche 1 allocation do not currently use floating structures and this will be considered against the business plans proposed through this tranche.	Relevance to the extent of The Order (2015): No action required. Relevance to T1 lease beds (2015-2020): Methodologies in Business Plans screened and assessed to ensure floating structures are not an intended practice. Relevance to T2 lease beds (2020-2025): Methodologies in Business Plans screened and assessed to ensure floating structures are not an intended practice. **Relevance to T3 lease beds (2025-2030):** Methodologies in Business Plans screened and assessed to ensure floating structures are not an intended practice.
Breeding population (productivity and survival)	*Overall breeding productivity and adult survival is at a level which is consistent with maintaining the structure and abundance of the population of Mediterranean gulls at or above its current or target level, whichever is the higher at all stages of its breeding cycle (courtship, nesting and feeding) is maintained.*		
	NE Advice (2015)	**Southern IFCA Response (2015)**	**Management Measures**
	"*…disturbance of Mediterranean gull nesting sites from boat movements for aquaculture taking place in proximity to Seagull Island could cause a decline in the annual productivity or breeding success of the population and this may adversely affect the overall size and*	The extent of The Order excludes the area of Seagull Island and Brownsea Lagoon. The extent into the Wareham Channel is deemed to be of a distance great enough not to cause disturbance to the Mediterranean gull by remaining in the area of the channel and avoiding areas designated as intertidal	Relevance to the extent of The Order (2015): No action required Relevance to T1 lease beds (2015-2020): No action required Relevance to T2 lease beds (2020-2025):

	age-structure of the breeding population and its long-term viability…".	sediment. Lays proposed under tranche 1 allocation are not within proximity to Seagull Island or Brownsea Lagoon.	No action required **Relevance to T3 lease beds (2025-2030):** No action required
Food availability (function and supporting processes)	*Maintain the overall prey availability of key prey species of preferred prey sizes which supports overwintering water bird assemblage, avocet, black-tailed godwit, shelduck and little egret and breeding common tern, sandwich tern and Mediterranean gull.*		
	NE Advice (2015)	**Southern IFCA Response (2015)**	**Management Measures**
	"…*sediment disturbance as a result of aquaculture (and in combination with other fishing activities) can potentially impact o bird prey availability, prey size and the bird's ability to forage over intertidal sediment communities and shallow inshore waters. This can be through removal (mortality) or target and non-target species and impacts on non-target prey availability through changes in habitat structure of the intertidal sediment communities. In addition, aquaculture practices could also potentially affect the water quality which in turn could impact on the prey availability*…".	The extent of The Order excludes the supporting habitats designated for the SPA; areas of intertidal sediment above mean low water (other than that already used for aquaculture), reed bed and saltmarsh are not contained within the extent. Lays under the Tranche 1 allocation have been in place for a period of 30 years and therefore under The Order will have a minimal impact on prey availability and habitat structure as the seabed within these lays is already well defined and developed for aquaculture. Currently under the Tranche 1 lays there are no structures placed on the seabed, which may affect prey availability access, the majority of these areas are also not exposed at low tide making them unsuitable for foraging. Currently there are no structures placed on the seabed for aquaculture, should this be proposed in the future, the IFCA will require a lease from the Crown Estate to cover the ground where structures would be placed, consideration will also be made to the impact on the available sediment on the placing of these structures.	Relevance to the extent of The Order (2015): No action required Relevance to T1 lease beds (2015-2020): Methodologies in Business Plans to be screened and assessed to ensure structures are not placed on the seabed. Relevance to T2 lease beds (2020-2025): Methodologies in Business Plans screened and assessed to ensure structure placed on the seabed are not an intended practice. Based on NE formal advice for the HRA for the issuing of leases in 2020 (updated Feb 21 following receipt of advice in Dec 20), an evidence package was developed which considered specific measures for lease beds 7, 8 and 12 on the basis that they were newly introduced beds for T2 and had not previously been subject to any aquaculture activity. This was a seasonal and temporal restriction on Lease Bed 12 and a seasonal restriction on Lease Beds 7&8, reported through evidence packages annexed to the 2020 HRA. **Relevance to T3 lease beds (2025-2030):** Methodologies in Business Plans screened and assessed to ensure structure placed on the seabed are not an intended practice. Assessment of activities under T3 through the HRA for 2025-2030 identified risks to prey availability are mitigated, full rationale provided in HRA.

Management Plan 2: Aquaculture and the Poole Harbour SSSI

The most recent HRA, completed for the T3 issuing of leases for 2025-2030, can be found on the Southern IFCA website[24]. This updated version of the HRA considers the current state of aquaculture activity in Poole Harbour and provides the rationale and supporting evidence for the proposed management measures under T3.

NE Advice (2015)	Southern IFCA Response (2015)	Management Measures
In addition to the overwintering birds the SSSI is designated for nesting birds using the fringing reed bed and saltmarsh habitats of Poole Harbour and several marine invertebrate species. Natural England advise that aquaculture has the potential to damage the breeding bird assemblage feature through disturbance in proximity to their nesting and feeding sites. Additional notable communities, including *Sabella,* have been identified in some channels in the Harbour. Natural England advise that proposals for aquaculture could potentially damage these communities.	The extent of The Order excludes reed bed, saltmarsh and key areas of intertidal sediment. The extent also excludes areas defined as 'Bird Sensitive Areas', which are also closed to shellfish dredging and hand raking, removing disturbance impacts and providing an area for nesting and feeding sites. Any proposals for aquaculture activity will be considered in relation to any notable communities' present in designated areas. In addition to the above considerations, Southern IFCA are advised that bird count data analysed by Natural England in 2012 indicates declines in numbers of overwintering birds in sectors of the Harbour. The areas of Lychett Bay and Brands Bay were highlighted; these areas are excluded from the extent of The Order. Mid-stream areas of the subtidal channels of Poole Harbour have high-density beds of the polychaete *Sabella* species. These are particularly widespread in the South Deep area and are of particular conservation interest as a habitat for other species (Dyrynda 1991). The species itself is not rare but Poole Harbour is the best-known example of where the species form high-density beds with a substantial associated fauna. As such they exhibit a high species richness and diversity, with the tubes colonised by seaweeds, sponges (including the rare *Suberites massa*), bryozoans and ascidians while crabs and fish are associated with these *Sabella* beds. (Dyrynda 1991; Baldock, 2016). *Sabella pavonia* is not a feature if the SSSI, however it supports the features and habitats of the designation and should be maintained in favourable condition, therefore any damage to *Sabella* beds constitutes damage to the feature and should be maintained.	Relevance to the extent of The Order (2015): No action required Relevance to T1 lease beds (2015-2020): Voluntary non-farming of the following lease beds: A, E, N (39.8 Hectares) to account for the presence of Sabella. Provision written into Business Plan **Relevance to T2 lease beds (2020-2025):** (1) Specific objectives for ongoing and future aquaculture management were outlined in the Site Management Statement. It is these management objectives that were taken forward in the Lease Bed Reallocation Programme 2020 delivered under T2 lease bed allocation under The Order. **(i) Full closure of:** • T1 beds **A, E, N**: due to presence of *Sabella pavonina* (equating to 39.8 hectares) in South Deep and Wych Channel. • T1 bed **BC**: due to presence of *Sabella pavonina* (equating to 2.4 hectares) within Wych Channel. The footprint of these areas (A, E, N, BC) will be considered for management as part of the Bottom Towed Fishing Gear Review: Phase II, which is currently underway. The scope of Phase II of the review and the process for the phasing of the BTFG review is outlined in the Management Intentions Document for the BTFG Byelaw 2023, available on the Southern IFCA website[25]. **(ii) Part closure of:** • T1 bed **BV**: due to the presence of *Sabella pavonina* (equating to 0.85 hectares) within Wych Channel • T1 bed **BX**: due to the presence of *Sabella pavonina* (equating to 0.92 hectares) within Wych Channel • T1 bed **AA**: (equating to 7.09 hectares) due to location in relation to intertidal sediments, which under the SSSI are key estuarine habitats, which comprise a range of biotopes including areas of *Zostera marina.* In addition, intertidal mudflats provide important areas for wintering waders and breeding rare birds in certain tides. (2) Based on NE formal advice for the HRA for the issuing of leases in 2020 (updated Feb 21 following receipt of advice in Dec 20), an
NE and Southern IFCA Site Management Statement (2018)		
Within Poole Harbour there are a number of areas where *Sabella pavonina* has been located. Advice received from Natural England was that aquaculture practice could potentially damage the *Sabella pavonina* beds. With the SSSI extension below mean low water and a clearer understanding of the location of *Sabella pavonina* beds and associated important sponge communities including *Suberites massa,* the advice from Natural England is that no aquaculture is to be allowed to operate in these areas. In addition, where lease beds overlay areas of intertidal sediments the impact of aquaculture must be considered to ensure that there is no adverse effect on the integrity of the site. This advice is clarified in a Site Management Statement[26], which is a public statement prepared jointly by Southern IFCA and Natural England in order to outline the management position in relation to fishing activity (to include aquaculture) operating within the Poole Harbour SSSI expansion, as notified on the 24th May 2018. The Joint Management Statement was agreed at the Meeting of the Full Authority in December 2018.		

[24] Poole-Harbour HRA 2025 - 2030

[25] BTFG Byelaw 2023 - Management Intentions Document

[26] Document available from Southern IFCA

	evidence package was developed which considered specific measures for lease beds 7, 8 and 12 on the basis that they were newly introduced beds for T2 and had not previously been subject to any aquaculture activity. This was a seasonal and temporal restriction on Lease Bed 12 and a seasonal restriction on Lease Beds 7&8, reported through evidence packages annexed to the 2020 HRA. **Relevance to T3 lease beds (2025-2030):** No action required with regard to management in line with Site Management Statement, T2 footprint maintained for T3. Consideration of footprint of areas A, E, N, BC for management remains subject to consideration under the BTFG Review: Phase II. For all lease beds, a seasonal & temporal restriction is implemented of no activity between 18:00 and 06:00 for the months of November to March inclusive. This ensures that all activities which may be undertaken (cleaning, seeding, harvesting) are occurring when there is no risk to rafting species such as red-breasted merganser & goldeneye, and aligns with management (agreed by NE through Formal Advice as appropriate mitigation) applied to the wild dredge fishery.

Management Plan 3: Aquaculture and the Poole Harbour RAMSAR Site		
NE Advice (2015)	**Southern IFCA Response (2015)**	**Management Measures**
In addition to overwintering waders and wildfowl the Ramsar site is designated for eelgrass beds. Natural England advised that physical damage could occur to this habitat if shellfish or structures supporting aquaculture were laid over the eelgrass beds.	Eelgrass beds are excluded from The Order extent and will not be subject to aquaculture activity. In addition, these areas are protected from bottom towed fishing gear and hand gathering under the Southern IFCA byelaws 'Bottom Towed Fishing Gear Byelaw'* and 'Prohibition of Gathering (Sea Fisheries Resources) in Seagrass Beds Byelaw' respectively. Aquaculture activity currently taking place in Poole Harbour does not occur over this feature. ** The Bottom Towed Fishing Gear Byelaw has since been replaced by The Bottom Towed Fishing Gear Byelaw 2016 and Southern IFCA have developed the Bottom Towed Fishing Gear Byelaw 2023 which proposes increases to the prohibited areas for eelgrass for BTFG within Poole Harbour. The BTFG Byelaw 2023 is currently in the process of being reviewed by MMO/Defra.*	Relevance to the extent of The Order (2015): No action required Relevance to T1 lease beds (2015-2020): No action required Relevance to T2 lease beds (2020-2025): No action required **Relevance to T3 lease beds (2025-2030):** No action required

Management Plan 4: Aquaculture and species interactions		
NE Advice (2017)	**Southern IFCA Response (2017-18)**	**Management Measures**
'…Due to the proximity of the Poole Harbour lease beds to the SSSI, SPA and Ramsar site, we believe that there is a risk that wild oyster settlement could adversely affect the features and supporting habitats of these sites. It is Natural England's view that in most cases, the risk of wild settlement can be minimised by using triploid oysters…on this basis we would support revised management measures to prohibit the laying of diploid oysters under the terms of the Poole Harbour Several Order. The advice provided above is consistent with Natural England's general guidance on Pacific oyster aquaculture within or adjacent to designated sites. However, in the absence of formal policy guidance, there may be circumstances where an applicant specifically requests the use of diploid oysters. In such cases, we would review the request on a site-specific basis with regard to local environmental conditions and seek assurance that any potential impacts of wild settlement are adequately mitigated. *In addition, Natural England have further clarified that their current view for Poole Harbour is that, as there has been no evidence of Pacific Oysters spreading over the intertidal mudflats in Poole Harbour as a result of current cultivation, Pacific Oysters may be laid on leased beds providing the oysters are of triploid stock or are subject to another method of sterilization including but not limited to the laying of quadriploid stock. Provided that appropriate amendments are incorporated into the Management Plan Natural England do not object to the farming of Pacific Oysters within Poole Harbour…'*	In order to ensure that the stock of Pacific oysters laid onto leased ground in Poole Harbour is of triploid stock or subject to another method of sterilization, an amendment will need to be made to the Poole Harbour Fishery Order 2015 Management Plan to stipulate a provision relating to the specific farming of Pacific oysters. This amendment to the Management Plan will also state that applications to farm Pacific Oysters using a type of stock different to that stipulated will be considered on a case-by-case basis with the proposed method being subject to an Appropriate Assessment.	<u>Relevance to the extent of The Order (2015):</u> No action required <u>Relevance to T1 lease beds (2015-2020):</u> Specific objectives for ongoing and future aquaculture management were outlined in the Site Management Statement in 2018 – leaseholders were made aware of the need to use triploid stock, or stock subject to another method of sterilisation on lease grounds. <u>Relevance to T2 lease beds (2020-2025):</u> Management Plan and lease conditions updated to reflect advice received from NE. New conditions relating to Pacific oysters to be introduced in the T2 leases, being: 1. The stock of Pacific oysters laid onto lease ground in Poole Harbour must be of triploid stock or subject to another method of sterilisation; 2. Applications to farm Pacific oysters using a type of stock different to that stipulated in (1) will be considered on a case-by-case basis, with the proposed methodology subject to an Appropriate Assessment. <u>Update 2022:</u> At a meeting of the Shellfish Association of Great Britain Mollusc Committee in March 2022, a representative from Defra provided an update that it had been determined that a National Policy on Pacific Oysters was not required. It had been decided that each Pacific Oyster aquaculture enterprise (farm) would require an individual HRA based on site-specific considerations. An HRA is already completed in line with the issuing of leases for The Order, it is therefore expected that any future amendments to the Management Plan and Lease Conditions which may be required will be determined on the basis of the drafting of the HRA every five years. <u>Update 2023:</u> In September 2022 a new national position on Pacific oysters was published by Defra. This position includes the following points: • Pacific oysters are currently considered to be established in England south of latitude 52°N and therefore, with current technology, cannot be prevented from establishing in, or be successfully or economically eradicated from this area; • Defra does not support the expansion of the Pacific oyster farming industry north of latitude 52°N; • Authorisations for farms south of 52°N within 5km of an MPA will continue to be granted only after the regulator has considered the outcome of site-based environmental impact assessments. These must take into account the impact of the Pacific oyster on the current condition of local MPAs if there is a likely adverse impact,

		Defra supports regulators to introduce mitigating authorisation conditions such as using triploidy or monitoring; • Cefas are working to carry out all outstanding environmental assessments for existing Pacific oyster farms near MPAs. Pacific oysters are currently covered under the HRA for the issuing of leases for 2020-2025 (updated February 2021, following the receipt of NE's formal advice in December 2020), specific points for management reflect those outlined in points (1) and (2) above. **Relevance to T3 lease beds (2025-2030):** Management Plan, HRA and lease conditions reflect management practice under T2.
NE Advice (December 2020)	**Southern IFCA Response (December 2020)**	**Management Measures**
'…(1) NE advise the need to establish and demonstrate that the current levels of Pacific oyster production are not causing an impact. To that end and in order to conclude no adverse effect on site integrity beyond reasonable scientific doubt, NE advises that 2 further aspects (in addition to the lease conditions introduced) are considered: *(a) That current levels of effort i.e. the amount of stock laid should be capped until it can be demonstrated that there is no risk to the Poole Harbour SPA and RAMSAR site;* *(b) that robust annual monitoring and reviews will be implemented to demonstrate that no feral populations have or will become established – the annual monitoring to be of particular relevance in light of expected CEFAs Pacific oyster analysis due in 2021…'*	Southern IFCA provided evidence of Mills (2016) as the most relevant source of data that demonstrates the status of Pacific oysters in the SPA. This PhD study presents an assessment of Pacific oyster presence and distribution in Poole Harbour based on data from 2013 and provides a comparison with other sites such as Southampton Water. The study reflects the apparent lack of feral populations of Pacific oysters in Poole harbour and suggests possible reasons for this.	Relevance to T2 lease beds (2020-2025): a) Current effort (amount of stock laid) has been capped in line with current (2020) and/or historic levels on beds farming Pacific oysters. Details of which can be found in the HRA. b) Annual monitoring and outcomes to be published in this Management Plan annually. The first monitoring to take place in April 2021 and continue annually for the duration of the leases in order to establish a baseline and provide a robust assessment of change over time. NE will be involved in discussions around methodology and outcomes (resulting analyses). The report for the 2021-22 survey is due to be provided in spring 2022. Update 2023: A survey of Pacific oysters was undertaken during 2021 into early 2022 by the University of Southampton. This survey work has been referenced in previous versions of this Management Plan. Based on an understanding of resource requirements, the methodology required to collect appropriate data and an ability to robustly review the data to help inform any reviews of the Management Plan. It has been determined that the data from this survey along with a consideration of any requirements for further monitoring work on this species will be reviewed as part of the wider process of developing the lease program for the period 2025-2030, with this work due to commence in the autumn of 2023. c) A National Policy on the use of Pacific oysters in aquaculture is anticipated to be introduced in 2021. As such, and where appropriate, both the Management Plan and Lease Conditions may be subject to amendments in line with the introduction of future National Policy. Update 2022**:** as per the section above, Defra will not be producing a National Policy for Pacific oysters at this time. Update 2023: as per above, Defra produced a national policy for the farming of Pacific oysters in September 2022.

		Relevance to T3 lease beds (2025-2030): Monitoring of Pacific oyster populations in Poole Harbour has been reviewed, looking at most recent survey data and historic data from studies monitoring the location, extent and size frequency distribution of wild populations. In addition, data from monitoring in Poole Harbour has been compared to wild population monitoring from Southampton Water where no aquaculture inputs exist. This report is available on the Southern IFCA website[27]. The outcomes of the review in summary: • Most recent survey data (2021-2022) indicates there has been an increase in Pacific oyster density in two out of five sites which have been surveyed in multiple years, however, densities remain low (1.3 and 1.5 per m^2). • For one site where there is a higher density of Pacific oysters (Pottery Pier, 3.54 per m^2), there is no data available from previous surveys to demonstrate whether there is a change from previous status. • There has been an observed decline in one area (Lake Pier/Drive) resulting in a lower classification zone being applied. • The area which historically demonstrated the highest densities (Blue Lagoon) has shown that densities are not increasing, and in the most recent survey were lower (7.64 per m^2) than in studies from 2012-2014 (>10 per m^2). It is recognised that there are limitations to survey methods, however considering the available data, comparisons to Southampton Water where there are generally greater densities more consistently across a wider area with no associated aquaculture activity, there is no indication that the presence of aquaculture activity in Poole Harbour is causing large increases in the presence of wild Pacific oysters, and there is no indication that the presence of wild Pacific oysters in Poole Harbour is resulting in large scale habitat change or the formation of reefs. Additional monitoring is likely to be beneficial within the T3 period (2025-2030) to maintain the timeseries dataset, at the time at which a new round of monitoring is determined to be appropriate, the potential for future monitoring methods can be explored more fully.

[27] Pacific-Oyster-Monitoring-Report

Management Plan 5: Aquaculture and water user interactions			
Management Measures			
Relevance to the extent of The Order (2015): Full assessments of interactions with other water users (navigation, wild fisheries and shellfish beds, personal watercraft interactions e.g. jet ski designated areas), small craft moorings, Port of Poole operations) undertaken during the consultation phase for The Order.	Relevance to T1 lease beds (2015-2020): As per relevance to extent of The Order (2015).	Relevance to T2 lease beds (2020-2025): Risk assessment (below) undertaken to quantify the interaction of aquaculture operations (vessel on site) on Lease Bed 12 with personal watercraft users. Outcomes: specific lease conditions to be introduced as per Risk Assessment controls (Annex 1).	**Relevance to T3 lease beds (2025-2030):** Specific lease conditions introduced under T2 to be maintained under T3. Risk Assessment reviewed in 2025, no changes required to RA.

Risk Assessment for aquaculture vessel operations and personal watercraft interactions		**Risk Assessment undertaken:** 11th April 2022 **Review:** Annually **Review Date:** 9th April 2025			**Assessor:** Southern IFCA (in collaboration with PHC)		
Activity/Process Interaction between aquaculture vessel operations (cleaning bed, seeding and harvesting) on Lease Bed 12 with the Personal Watercraft Area north of Brownsea Island	**Number of persons at risk:**						
	Number	**Lease holder and operatives**			**Personal watercraft users**		
	1						
	2-5						
	6-10						
	10+						
Hazards involved with activity/process		**Without control measures**			**With control measures**		
		Likelihood X	**Severity =**	**Rating**	**Likelihood X**	**Severity =**	**Rating**

A	Collision between vessel used for aquaculture and personal watercraft users	4	4	16	1	4	4
B	Collision between personal watercraft users and buoys used to demarcate the boundary of the lease bed	4	4	16	1	4	4
Basic safety measures/controls/mitigation							
1	**Prohibition of aquaculture activities inside of the hours: 08:00 and 20:00 during the months April to September,** with the intention to reduce the interaction between water users and vessels used for the purposes of aquaculture. Assumption that the peak number of water users will be operational during daylight hours and during the spring and summer months.						
2	Requirement for leaseholder to have **functional AIS onboard vessel and active during hours of operations**. This will negate the need for physical marking of the lease bed area (buoys) and thus remove the potential for interaction between personal watercraft and buoys.						

Management Plan 6: Supporting delivery of national legislation & policy		
Legislation / Policy Framework	**Responsibilities**	**Management Measures**
The Fisheries Act 2020	UK commitment to sustainable fishing and supporting future generations of fishers, whilst allowing the marine environment to thrive. Management of The Order should align with the Government's shared ambition under the JFS *"to continue delivery world class sustainable management..."* in accordance with achieving, or contributing to the achievement of, the eight Fisheries Objectives. Eight Fisheries Objectives: • Sustainability Objective • Precautionary Objective • Ecosystem Objective • Scientific Evidence Objective • Bycatch Objective • Equal Access Objective • National Benefit Objective • Climate Change Objective	**Relevance to T3 lease beds (2025-2030):** Management of The Order in line with the Management Plan, lease conditions and outputs of the HRA for the issuing of leases for 2025-2030, contributes towards the achievement of 7 out of the 8 Fisheries Objectives. The detail for each relevant Objective is provided in Annex 3 to this document. The only Objective not relevant is the Equal Access Objective as the management of aquaculture under a Several Order requires a limitation on the number of leaseholders allowed to operate in order to realise the benefits of sustainable aquaculture practice.

The Marine Strategy Regulations 2010	A framework for achieving or maintaining Good Environmental Status in marine waters. For Southern IFCA to take action to achieve or maintain GES in the District's waters, with management of sustainable aquaculture complementing GES and contributing to the 11 qualitative descriptors: 1) Biological diversity (cetaceans, seals, birds, fish, pelagic habitats and benthic habitats) 2) Nonindigenous species 3) Commercially exploited fish and shellfish 4) Food webs (cetaceans, seals, birds, fish and pelagic habitats) 5) Eutrophication 6) Sea-floor integrity (pelagic habitats and benthic habitats) 7) Hydrographical conditions 8) Contaminants 9) Contaminants in fish and other seafood for human consumption 10) Marine litter 11) Introduction of energy, including underwater noise	**Relevance to T3 lease beds (2025-2030):** Management of The Order in line with the Management Plan, lease conditions and outputs of the HRA for the issuing of leases for 2025-2030 includes actions which are contributing to GES within Poole Harbour. Each of the 11 qualitative descriptors is supported by an aspect of the management and activity undertaken within the scope of The Order. The detail for each descriptor is provided in Annex 3 to this document.
UK Net Zero Strategy	Southern IFCA endeavour to support and champion activities which offer support to meeting the UK Net Zero Strategy, including blue carbon initiatives.	**Relevant to T3 lease beds (2025-2030):** A review of literature relevant to the ecosystem services provided by aquaculture in Poole Harbour looks at blue carbon as one of the provided services. Whilst there is still further research to be done on the extent of the blue carbon service provided, noting that environmental factors can impact the level to which this occurs, providing for bivalve aquaculture through the management of The Order, could have the following benefits: • Bivalves acting as a carbon sink by absorbing dissolved CO_2 from the water column • Shellfish farming has low energy input, costs and tech requirements compared to other carbon capture methods • Blue mussels and Pacific oysters represent the two main species for bivalve carbon sequestration • Seabed bivalve cultures have been shown to sequester more carbon than suspended cultures due to lower remineralisation rates
The Environment Act 2021 25 Year Environment Plan (*designated under the EA 2021*) Environmental Improvement Plan 2023 (*1st revision of 25YEP*)	Statutory targets for the recovery of the natural world and reversing the decline in species abundance. Supporting Defra in the delivery of the EIP, considering how biodiversity can be enhanced and conserved, evidencing the role of aquaculture management in the collective delivery of the Government's vision to *"…help the natural world regain and retain good health…"*, following the commitment to *"…leave the environment in a better state for future generations…"* and *"…halt the decline of nature by 2030…"*	**Relevance to T3 lease beds (2025-2030):** Management under The Order is assessed under an HRA, completed for each lease cycle (current HRA for 2025-2030), to ensure that practices are sustainable and will not result in an adverse impact on the SPA, SSSI or Ramsar site designations for Poole Harbour. In this way, all operations under The Order are in line with supporting the natural environment and promoting good practice of sustainable activity alongside a sustainable marine environment. The Order provides for sustainable aquaculture operations which provide a wide range of ecosystem services. These services are explored through a review of literature as relevant to the ecosystem

		services provided by aquaculture in Poole Harbour[28], outlining the benefits of aquaculture resulting from nutrient cycling, blue carbon, ecosystem impacts associated with natural capital and food security – all of which contribute to supporting good health in the marine environment, leaving the environment in a better state and contributing to the aim to halt declines in nature. The contributions of management and activity under The Order to both the Fisheries Act 2020 Objectives and the achievement or maintenance of GES also support the wider role under the EIP for sustainability in the marine environment and how aquaculture in Poole Harbour and associated management is helping to delivery the Government's vision.

[28] Poole-Order-Literature-Review

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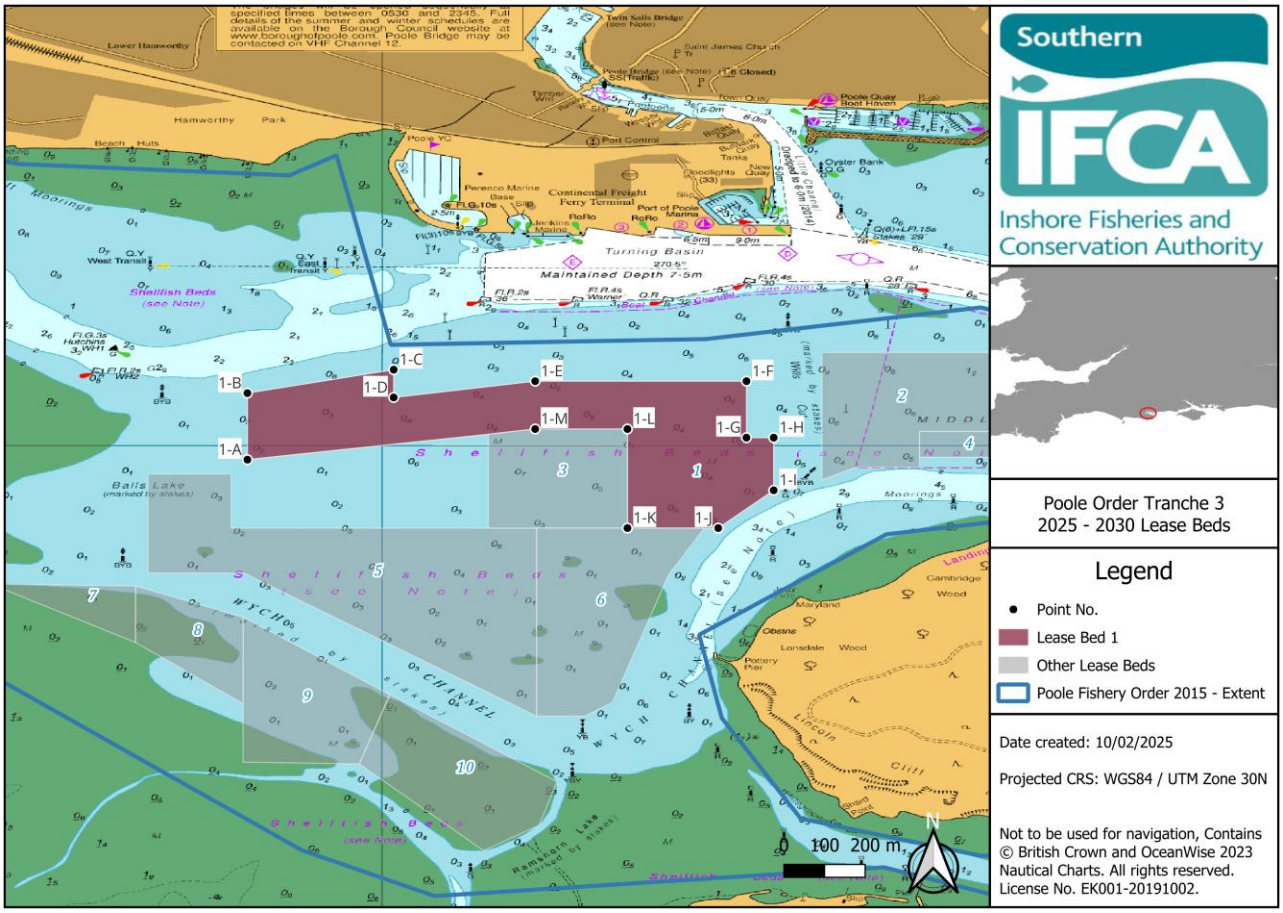
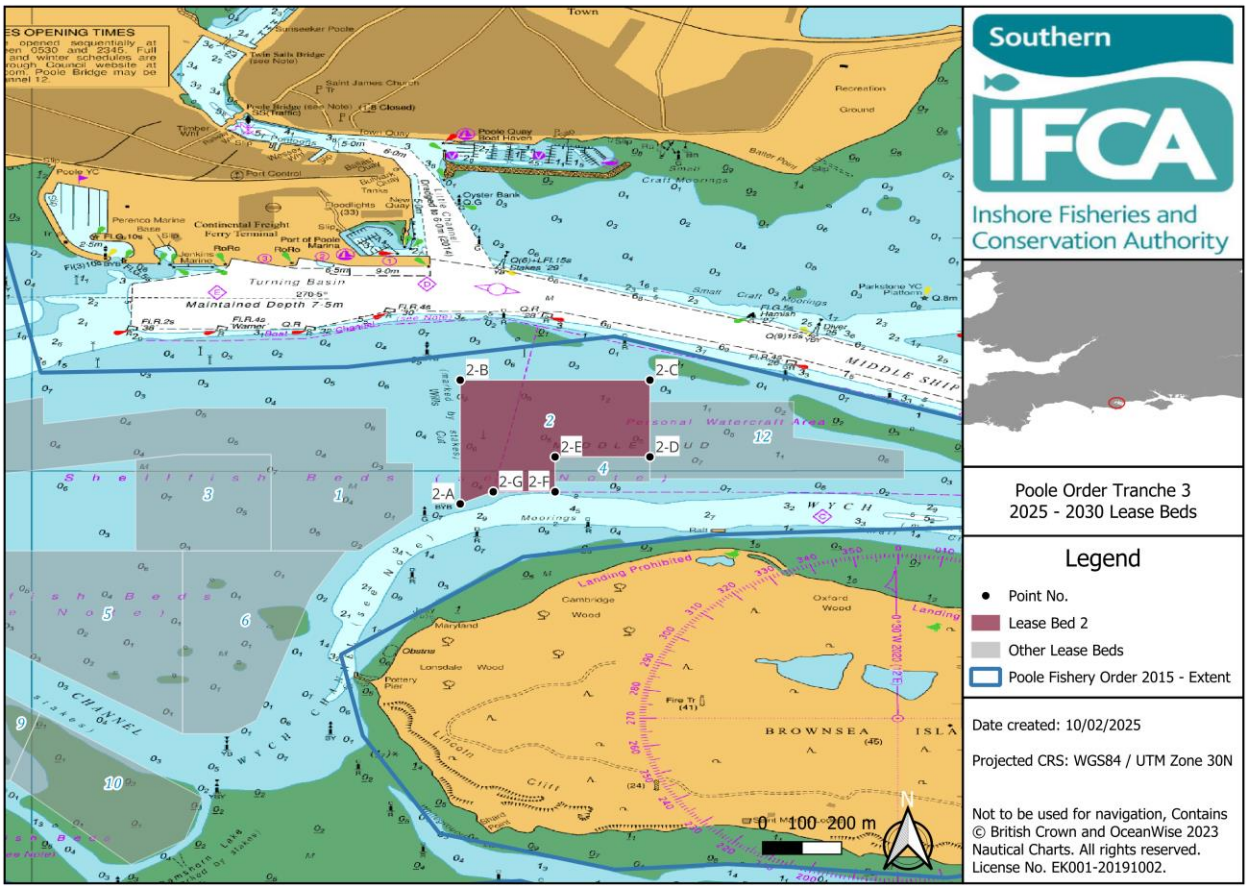
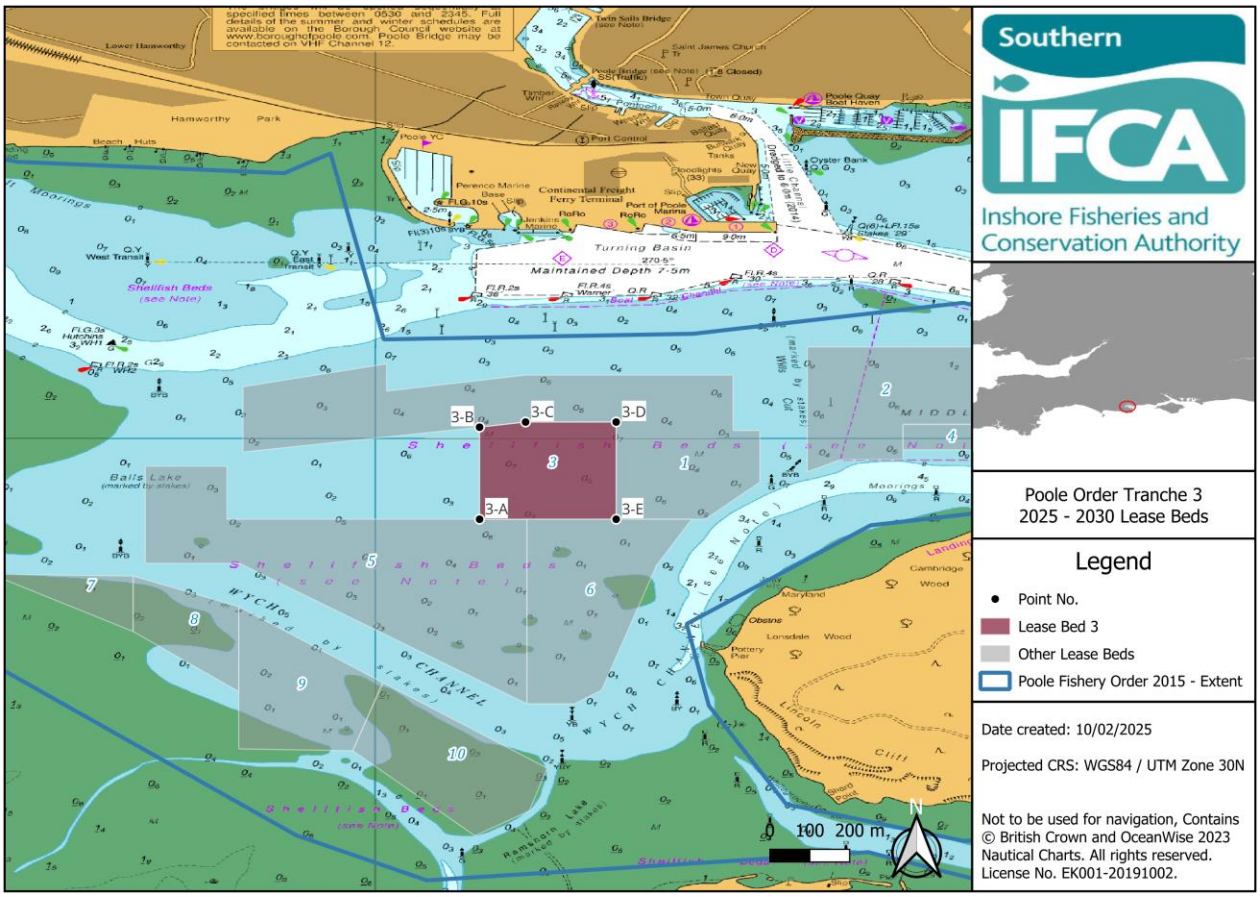
Annex 1: Tranche 3 lease bed charts and coordinates



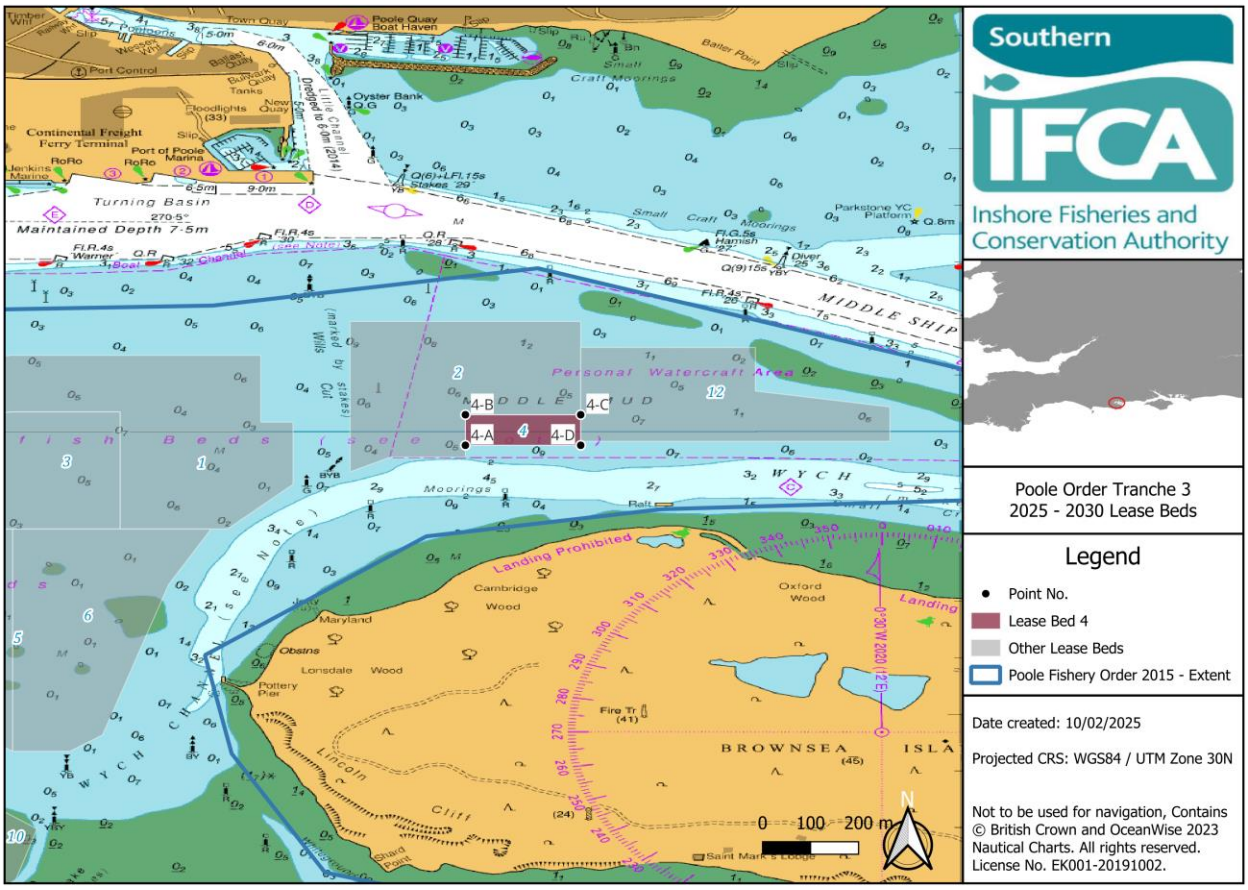
Lease Bed 1– external coordinates		
Point No.	Longitude	Latitude
1-A	002° 00.282' W	50° 41.970' N
1-B	002° 00.282' W	50° 42.109' N
1-C	001° 59.976' W	50° 42.158' N
1-D	001° 59.976' W	50° 42.100' N
1-E	001° 59.680' W	50° 42.134' N
1-F	001° 59.238' W	50° 42.134' N
1-G	001° 59.238' W	50° 42.016' N
1-H	001° 59.181' W	50° 42.016' N
1-I	001° 59.181' W	50° 41.906' N
1-J	001° 59.297' W	50° 41.827' N
1-K	001° 59.487' W	50° 41.827' N
1-L	001° 59.487' W	50° 42.034' N
1-M	001° 59.680' W	50° 42.034' N



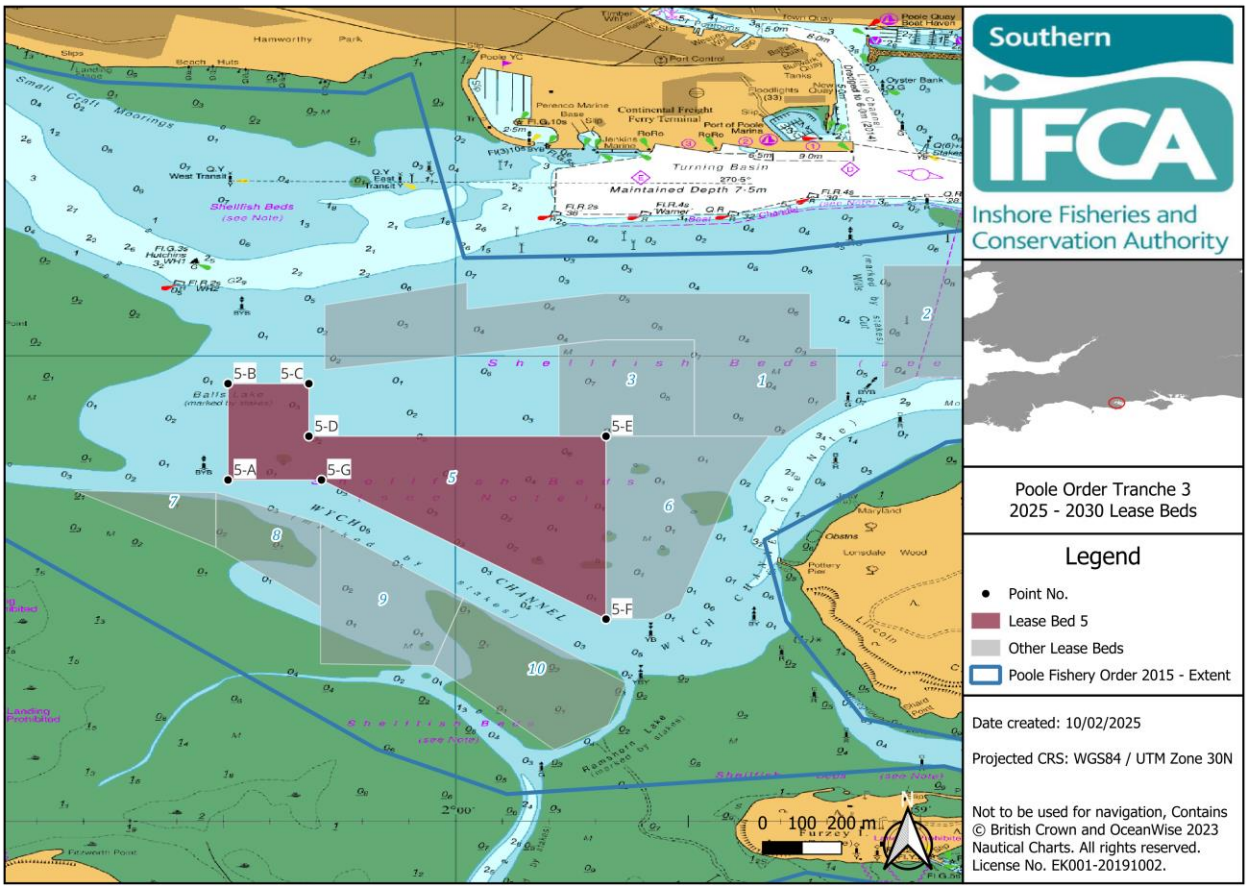
Lease Bed 2– external coordinates		
Point No.	Longitude	Latitude
2-A	001° 59.080' W	50° 41.928' N
2-B	001° 59.080' W	50° 42.194' N
2-C	001° 58.672' W	50° 42.194' N
2-D	001° 58.672' W	50° 42.029' N
2-E	001° 58.876' W	50° 42.029' N
2-F	001° 58.876' W	50° 41.954' N
2-G	001° 59.009' W	50° 41.954' N



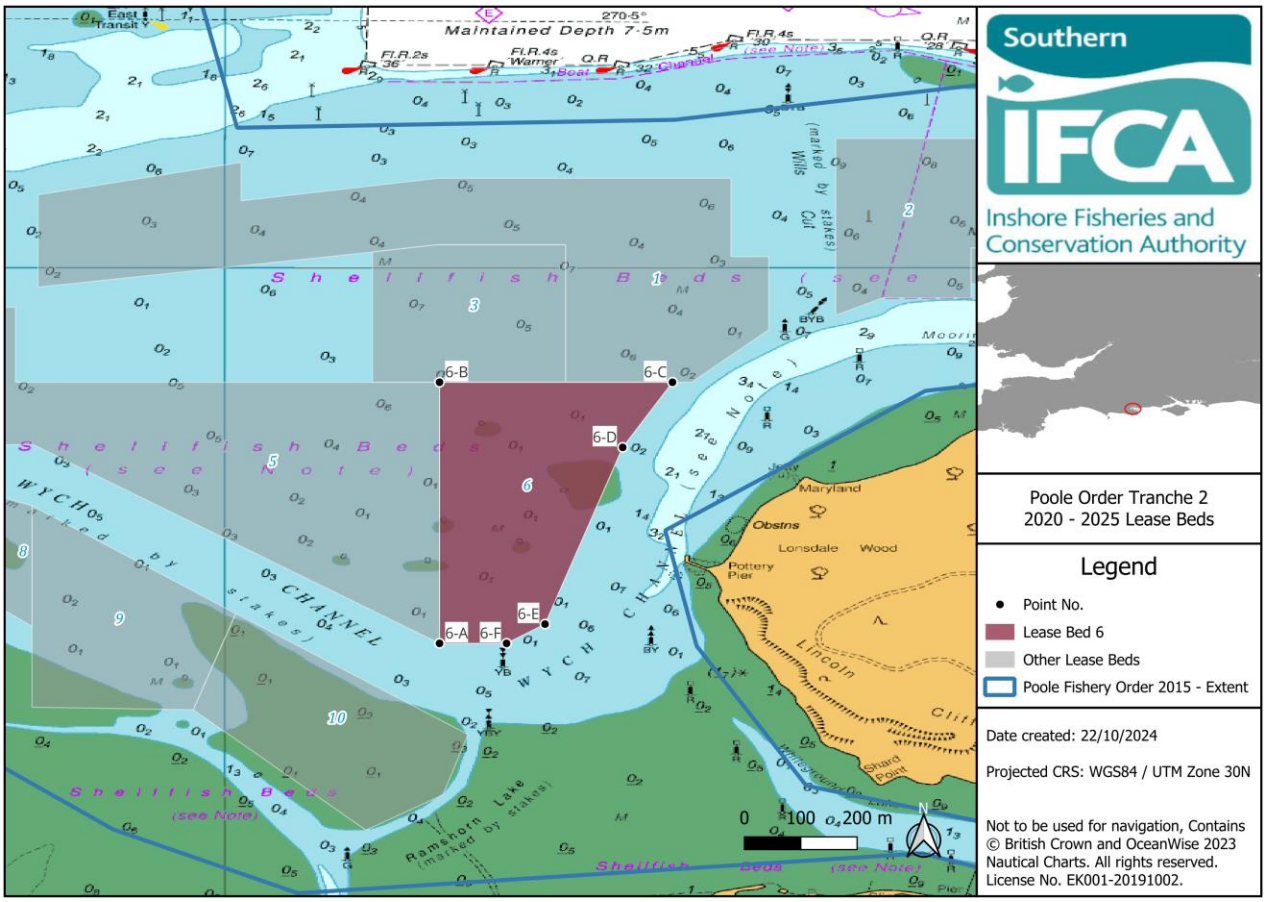
Lease Bed 3 – external coordinates		
Point No.	Longitude	Latitude
3-A	001° 59.778' W	50° 41.827' N
3-B	001° 59.778' W	50° 42.023' N
3-C	001° 59.680' W	50° 42.034' N
3-D	001° 59.487' W	50° 42.034' N
3-E	001° 59.487' W	50° 41.827' N



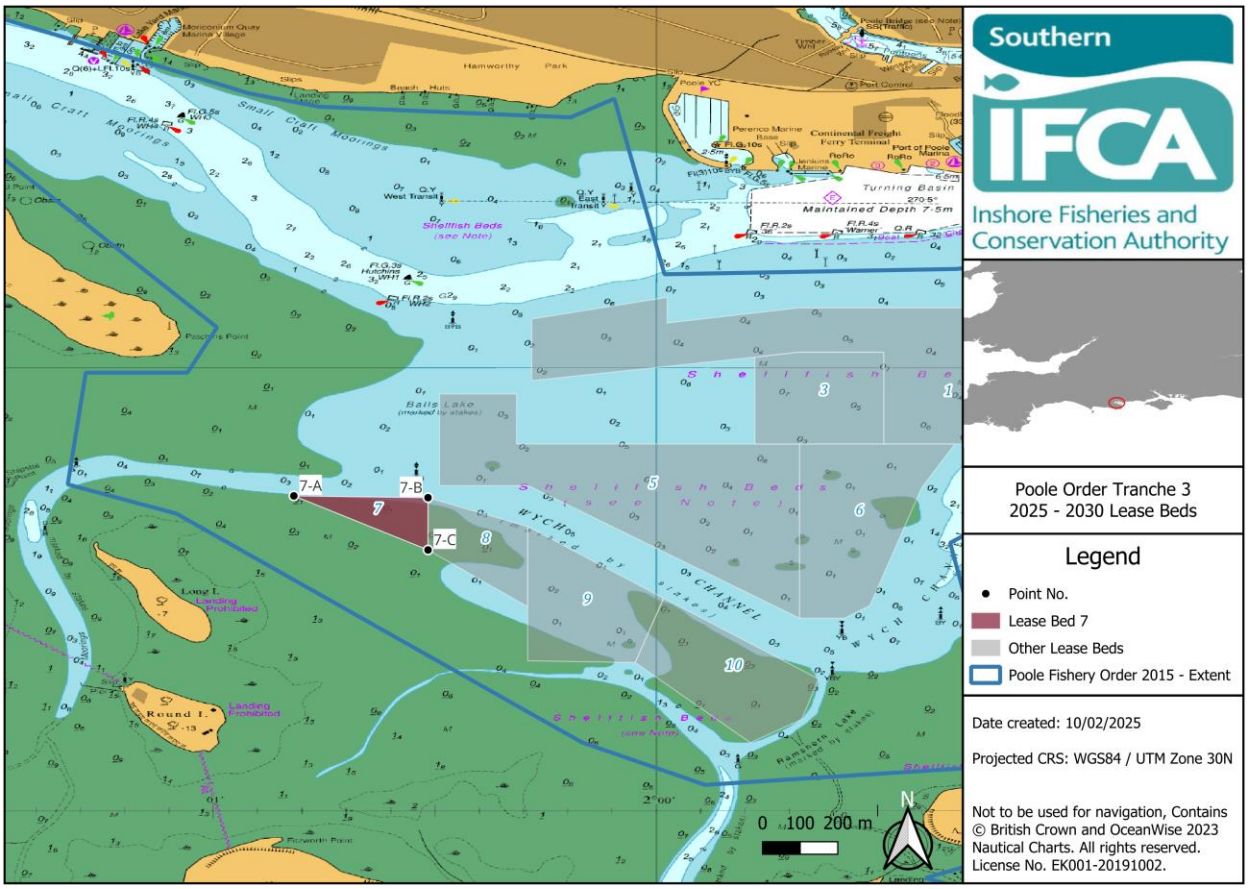
Lease Bed 4 – external coordinates		
Point No.	Longitude	Latitude
4-A	001° 58.876' W	50° 41.975' N
4-B	001° 58.876' W	50° 42.029' N
4-C	001° 58.672' W	50° 42.029' N
4-D	001° 58.672' W	50° 41.975' N



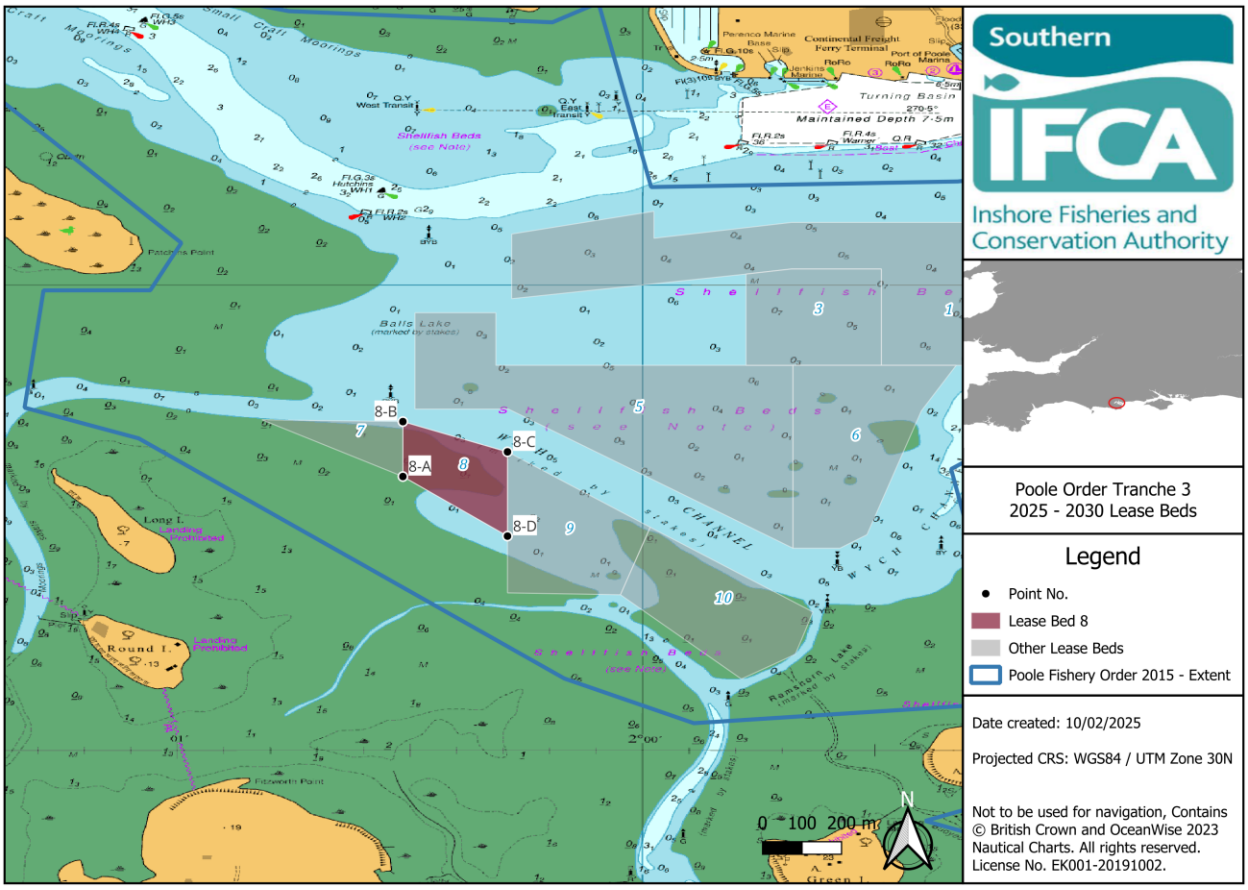
Lease Bed 5 – external coordinates		
Point No.	Longitude	Latitude
5-A	002° 00.490' W	50° 41.733' N
5-B	002° 00.490' W	50° 41.940' N
5-C	002° 00.316' W	50° 41.940' N
5-D	002° 00.316' W	50° 41.827' N
5-E	001° 59.677' W	50° 41.827' N
5-F	001° 59.677' W	50° 41.434' N
5-G	002° 00.289' W	50° 41.733' N



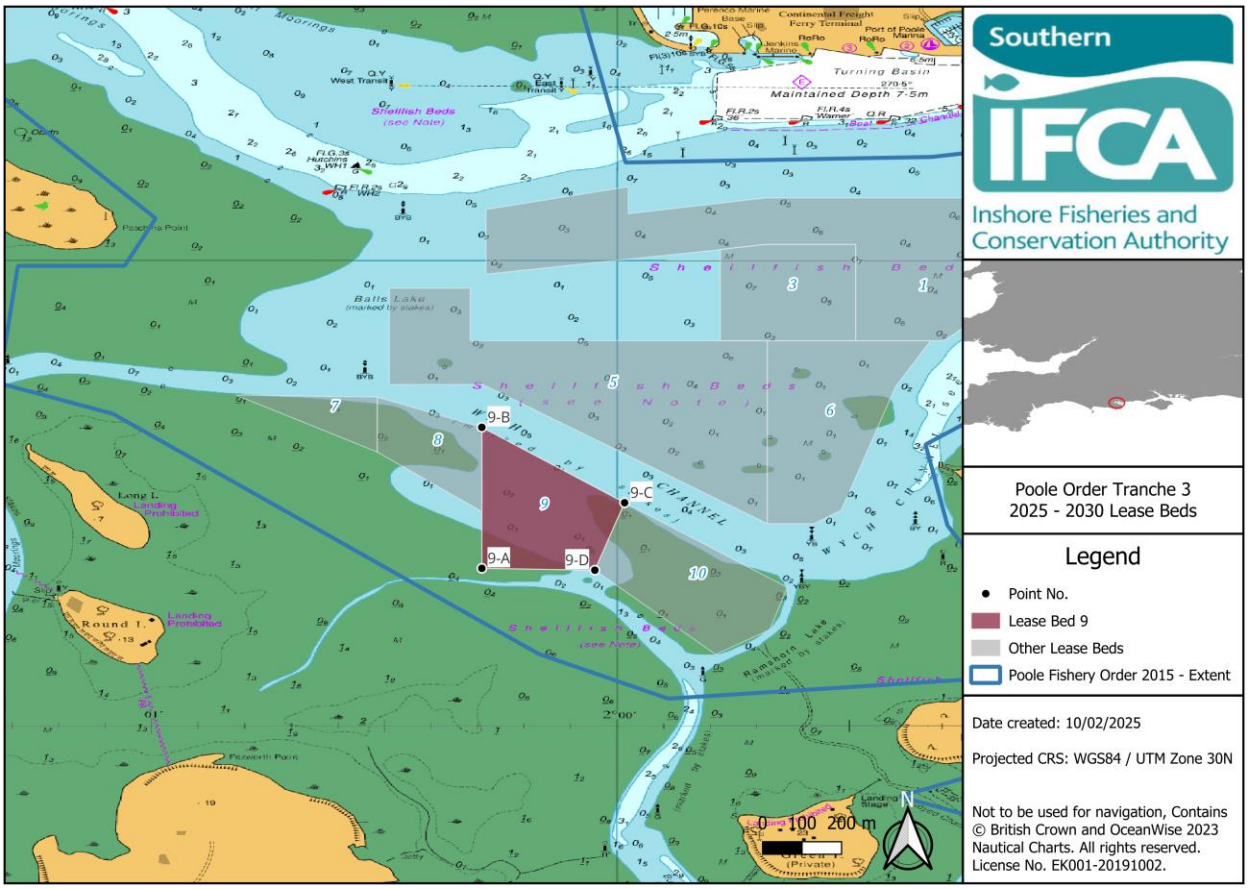
Lease Bed 6 – external coordinates		
Point No.	Longitude	Latitude
6-A	1° 59.677' W	50° 41.434' N
6-B	1° 59.677' W	50° 41.827' N
6-C	1° 59.326' W	50° 41.827' N
6-D	1° 59.401' W	50° 41.729' N
6-E	1° 59.518' W	50° 41.463' N
6-F	1° 59.576' W	50° 41.434' N



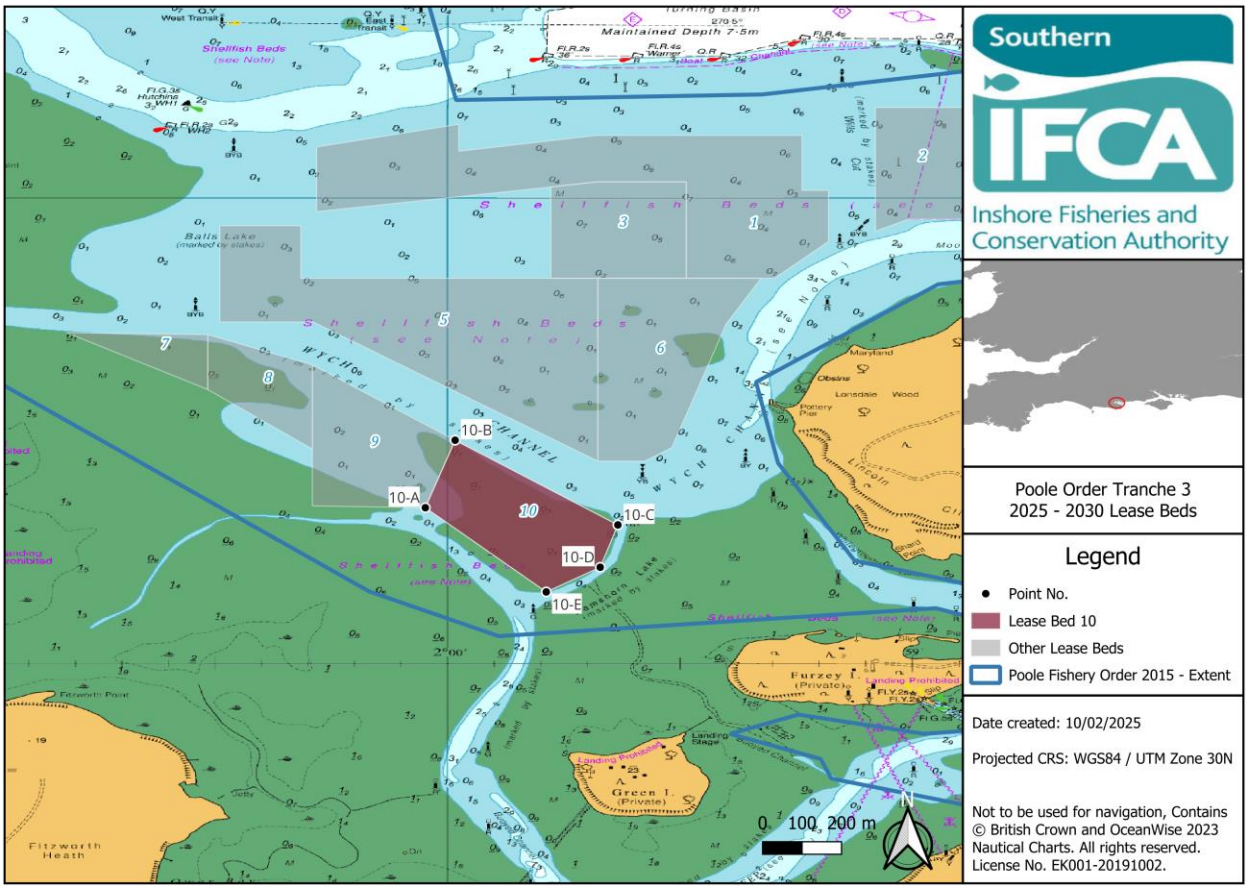
Lease Bed 7 – external coordinates		
Point No.	Longitude	Latitude
7-A	002° 00.819' W	50° 41.710' N
7-B	002° 00.516' W	50° 41.706' N
7-C	002° 00.516' W	50° 41.588' N



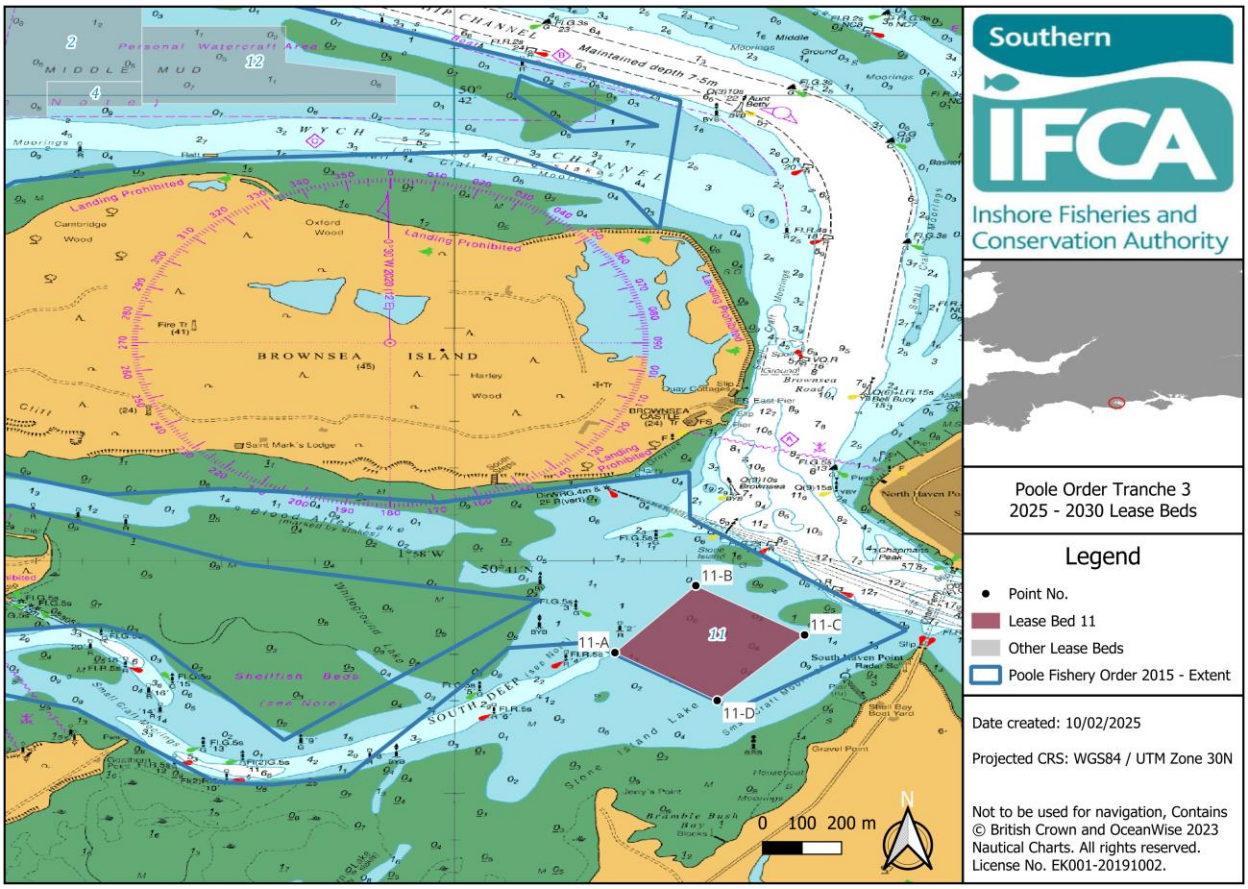
Lease Bed 8 – external coordinates		
Point No.	Longitude	Latitude
8-A	002° 00.516' W	50° 41.588' N
8-B	002° 00.516' W	50° 41.706' N
8-C	002° 00.291' W	50° 41.641' N
8-D	002° 00.291' W	50° 41.460' N



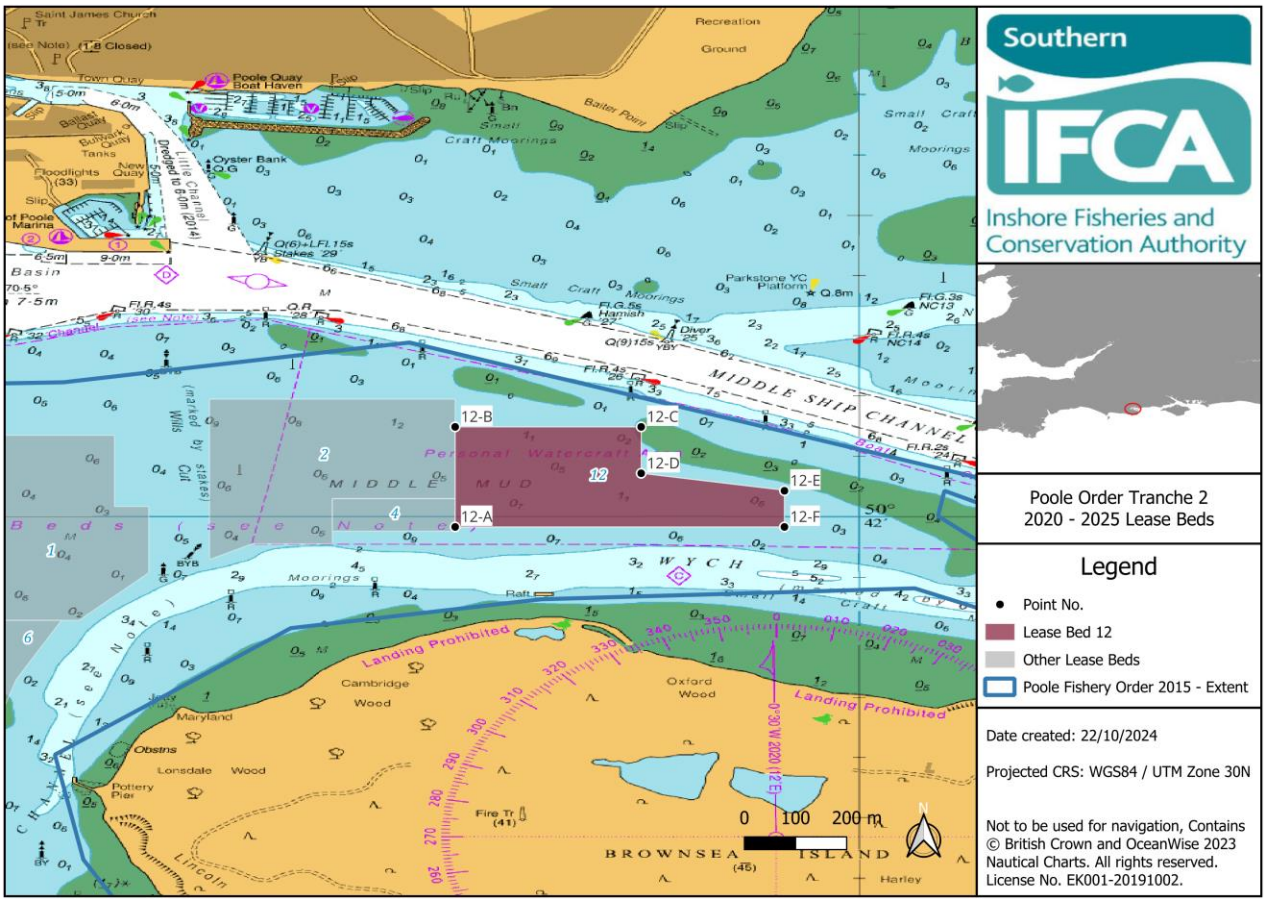
Lease Bed 9 – external coordinates		
Point No.	Longitude	Latitude
9-A	002° 00.291' W	50° 41.338' N
9-B	002° 00.291' W	50° 41.641' N
9-C	001° 59.984' W	50° 41.479' N
9-D	002° 00.048' W	50° 41.334' N



Lease Bed 10 – external coordinates		
Point No.	Longitude	Latitude
10-A	002° 00.048' W	50° 41.334' N
10-B	001° 59.984' W	50° 41.479' N
10-C	001° 59.634' W	50° 41.297' N
10-D	001° 59.672' W	50° 41.206' N
10-E	001° 59.788' W	50° 41.153' N



Lease Bed 11 – external coordinates		
Point No.	Longitude	Latitude
11-A	001° 57.655' W	50° 40.802' N
11-B	001° 57.481' W	50° 40.946' N
11-C	001° 57.247' W	50° 40.840' N
11-D	001° 57.435' W	50° 40.699' N



Lease Bed 12 – external coordinates		
Point No.	Longitude	Latitude
12-A	001° 58.672' W	50° 41.982' N
12-B	001° 58.672' W	50° 42.148' N
12-C	001° 58.363' W	50° 42.148' N
12-D	001° 58.363' W	50° 42.071' N
12-E	001° 58.125' W	50° 42.042' N
12-F	001° 58.125' W	50° 41.982' N

Annex 2: Shellfish Movement Guidance Document

The Poole Harbour Fishery Order 2015

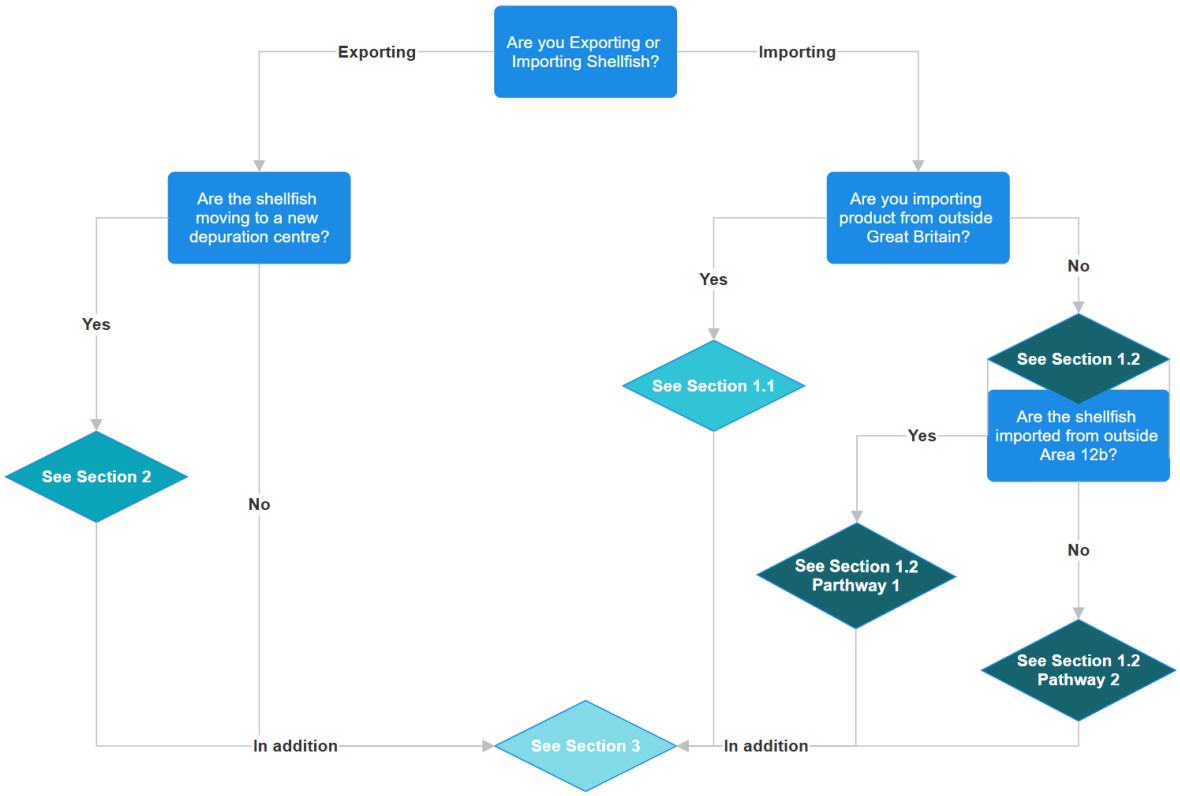
Shellfish Movements Guidance Document

Information for Leaseholders under leases held for the period 2025-2030

The Southern IFCA operates as the Aquaculture Production Business (APB) for The Order. The Authorisation issued to Southern IFCA by the Centre for Environment, Fisheries and Aquaculture Science (Cefas) permits aquaculture activity to take place within the footprint of The Order and stipulates reporting requirements for shellfish movements.

This guidance document outlines the reporting requirements for leaseholders in relation to shellfish movements and how this data will be recorded. Leaseholders are advised to use this guidance to ensure that the required data for each type of movement is reported to Southern IFCA. The guidance covers both on-site and off-site movements.

Within the guidance, actions for the leaseholder are given in **blue**, actions that will be taken by Southern IFCA are given in **green**. Leaseholders are advised to use the flow chart below in the first instance to determine the appropriate section of the guidance relevant to a particular shellfish movement.



Section 1: On-Site Movements and Shellfish Imports

1.1 Importing product from outside Great Britain (EU and non-EU countries)

This section is relevant for any leaseholder who imports products from outside Great Britain, whether that be from an EU or non-EU country, into Poole Harbour for placing on a lease bed.

The Leaseholder is responsible for registering any imports under this category. This must be done using the Import of Products, Animals, Food and Feed Systems (IPAFFS) process, an online electronic record of movements that allows for tracking and confirmation of those movements by Cefas.

Information on this process can be found here - Import of products, animals, food and feed system (IPAFFS) - GOV.UK (www.gov.uk), alternatively you can search "IPAFFS.gov.uk" and follow links to the Government website. The website provides instructions on how to register under the system and how to record shellfish movements.

It is vital that any movements are registered 5 days in advance before the product arrives in Great Britain. Note that this references Great Britain, rather than the UK, therefore imports from Northern Ireland for example must be registered using this system.

Once the movement has been registered on the IPAFFS system, **Southern IFCA** will need to register the import movement on the **Fish Health Inspectorate (FHI) Online** system. Therefore, following completion of the IPAFFS process, **the leaseholder must inform Southern IFCA** of the relevant import movement so it can be uploaded to FHI Online.

Leaseholder information required for imports from outside Great Britain

The leaseholder must supply the following information to Southern IFCA:

- The source site (business name and address)
- The date of the movement
- The species being moved
- The species development stage
- The quantity (number), total weight (kg) and average weight (g) of each species

Please submit this information **by email** to the following address: enquiries@southern-ifca.gov.uk please include **'shellfish movement'** in the title of the email

1.2 Shellfish Movements within Great Britain

For shellfish movements within Great Britain, there are two pathways depending on the origin of the shellfish.

Pathway 1: Shellfish movements from outside Cefas Area 12b

Southern IFCA are required to register shellfish movements for shellfish coming from **within Great Britain but outside of Cefas Area 12b** – see map in Annex 1 for the location of Area 12b. These movements will be registered on the FHI Online system.

For any shellfish movements **into Poole Harbour from outside Cefas Area 12b**, the leaseholder must inform Southern IFCA **at least 5 days** before the movement takes place.

Leaseholder information required for shellfish movements from outside Area 12b:

The leaseholder must supply the following information to Southern IFCA:

- The source site (business name and address)
- The date of the movement
- The species being moved
- The species development stage
- The quantity (number), total weight (kg) and average weight (g) of each species

Please submit this information **by email** to the following address: enquiries@southern-ifca.gov.uk please include **'shellfish movement'** in the title of the email

Pathway 2: Shellfish movements within Cefas Area 12b

Leaseholders do not need to pre-emptively inform Southern IFCA of shellfish movements where the source location is within Cefas Area 12b – see map in Annex 1 for the location of Area 12b.

If the leaseholder is uncertain which of the above processes applies to a particular shellfish import or movement, please contact Southern IFCA for assistance using the details at the end of this guidance document.

Section 2: Offsite Movements and Shellfish Exports

Shellfish movements **off** lease beds do not need to be reported to Southern IFCA at the time of the movement. Where shellfish is being moved to a depuration centre, it is the responsibility of the depuration centre to record the movement on the FHI Online system.

The leaseholder must inform Southern IFCA of all depuration centres that may be used by the business so that these can be recorded in The Poole Fishery Order 2015 Biosecurity Plan and reported to Cefas. **The leaseholder must update Southern IFCA** throughout the year if any new depuration centres are to be used.

There is a requirement for the leaseholder to report annually to Southern IFCA on all shellfish movements associated with the relevant lease beds, therefore although information on off-site movements does not need to be reported to Southern IFCA at the time of the movement, a record of all individual movements will need to be provided when requested for the purpose of the annual collation of data – see **Section 3** of this Guidance Document.

Section 3: Annual Shellfish Movement Production Data

Southern IFCA requires records of all shellfish movement data for each aquaculture business on an annual basis. **Southern IFCA** are required to report this information to Cefas through an annual return for The Poole Fishery Order 2015 and are also required to submit it as part of the annual inspection by the Cefas Fish Health Inspectorate.

Following the end of a financial year (1st April to 31st March), **Southern IFCA** will send out an email to each leaseholder requesting detail of all shellfish on and off-site movements that have taken place during that financial year.

This includes the following information, both on and off-site:

- Number of movements and the date that movements took place

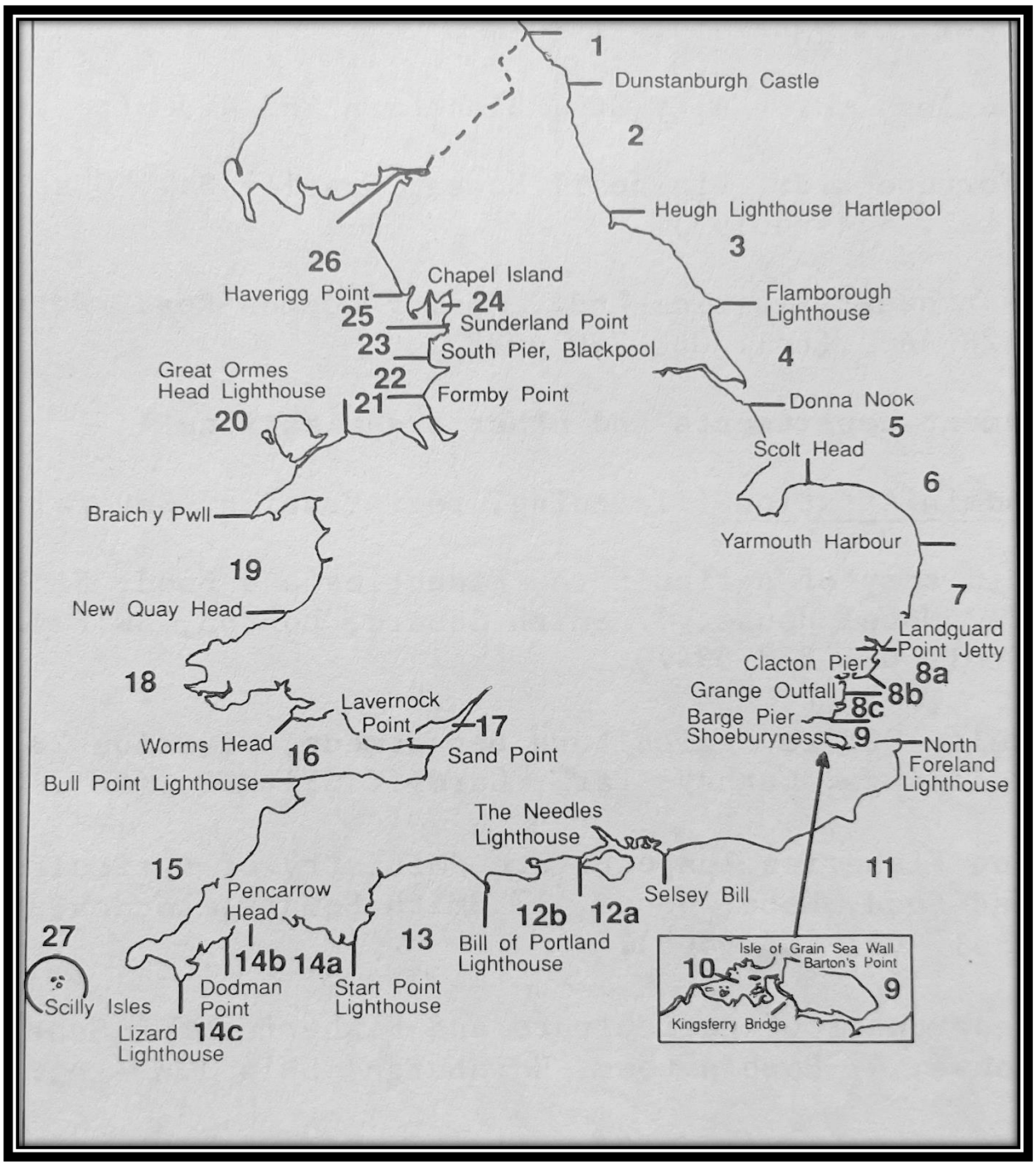
For each movement:

- Species name and development stage
- Specification of whether the movement was on or off-site
- Source or destination for the movement
- Weight and number of each species moved
- The monetary value of the movement

Southern IFCA will provide a template as part of the request for this information, **for leaseholders to populate with the above required information**. As part of the request Southern IFCA will stipulate a deadline for the submission of the required data, **the leaseholder must submit all required information to Southern IFCA by the given deadline.**

If any assistance is required with the use of this guidance document or the application of any of the required reporting processes please contact Southern IFCA at enquiries@southern-ifca.gov.uk or by phone on 01202 721373.

Annex 1.



A map of Cefas designated shellfish areas. Area 12b is the designated coastal area within which Poole Harbour lies, the area covers between the Bill of Portland Lighthouse and The Needles Lighthouse.

Annex 3: Fisheries Act 2020 objectives & GES qualitative descriptors under Marine Strategy Regulation 2010

As outlined in Management Plan 7 (Section 7.0 of this document), management of The Order in line with this document, lease conditions and outputs of the HRA for the issuing of leases for 2025-2030, contributes towards the achievement of 7 out of the 8 Fisheries Objectives detailed in The Fisheries Act 2020.

The below table provides detail on each relevant Objective and how aquaculture under The Order is contributing to the achievement of this Objective. The only Objective not relevant is the Equal Access objective as the management of aquaculture under a Several Order requires a limitation on the number of leaseholders allowed to operate in order to realise the benefits of sustainable aquaculture practice.

Fisheries Act 2020 Objective	Contribution from aquaculture activity under The Poole Harbour Fishery Order 2015
The Sustainability Objective	
(a) Fish and aquaculture activities are - i) environmentally sustainable in the long term	• Aquaculture is manged in accordance with the HRA for issuing of leases (current version 2025-2030) which ensures that all activity is compatible with the designation of Poole Harbour as an SPA, SSSI and Ramsar Site. • Operations under The Order operate in accordance with a Biosecurity Plan which mitigates against any damage to the environment from non-native species, pathogens or pollution from aquaculture activity. • Bivalve aquaculture is a form of low-trophic aquaculture producing a variety of ecosystem services. Compared to other forms of aquaculture, bivalve farming has a relatively low energy input, low costs and low technology requirements (Feng *et al.,* 2023). • Bivalves are filter feeders and therefore do not require feed inputs, reducing pressure on wild stocks by removing a reliance on fishmeal and fish oil. o Absence of feed input removes risks of over-enrichment of the environment which can lead to water quality decline. • Bivalves naturally filter excess nutrients (such as nitrogen and phosphorus) from the water, reducing the risk of eutrophication and the development of algal mats or harmful agal blooms. o Blue mussels and pacific oysters, the two most abundantly farmed species in Poole Harbour, have been shown to filter up to 62% of Poole Harbour depending on tidal factors (Gravestock *et al.,* 2020). • Cultivated bivalves contribute to the health of wild finfish populations. On-bottom bivalve aquaculture provides habitat complexity and increase nutrient cycling which can enhance the population of fish species as is found with natural reefs (Mascorda-Cabre *et al.,* 2021). • Bivalves help to improve water quality through filter feeding, which can have benefits for other species and habitats including designated supporting habitats of the SPA such as seagrass and saltmarsh which are also noted to be important essential fish habitats (Castagno, 2018; Howarth et al., 2022). • Bivalve filtration has been attributed to a reduction in epiphytes on temperate seagrass beds near aquaculture sites due to filtering seston and rapid nitrogen recycling (Brenner *et al.,* 2014).

	• Improved denitrification rates observed by bivalve aquaculture may remove pollutants from the water column and also reduce the transmission of disease to bivalves and other organisms through filtration and burial (Broszeit *et al.,* 2016; Burge *et al.,* 2016). Pacific oyster cultivation has been shown to reduce parasite loads and infections in blue mussel.
ii) managed so as to achieve economic, social and employment benefits and contribute to the availability of food supplies	• Aquaculture in Poole Harbour is linked to the local coastal community and wider regional, national and international businesses promoting trade and allowing for employment opportunities at both a local level and in associated businesses. • Aquaculture businesses operating in Poole Harbour are linked to a variety of supported industries, for example, restaurants, food supply, marinas, boat builders, marine engineers, transport. • The ecosystem services provided by aquaculture also have extending benefits, for example water quality improvements are associated with benefits to local communities and tourism with the relevant associated industries in hospitality and for local businesses. • The value of aquaculture in Poole Harbour was estimated at £2.6 million in 2018 (Williams & Davies, 2018). • The majority of bivalve mariculture production in England is related to blue mussel (67%) and Pacific oyster (32%), both species are farmed in Poole Harbour and represent the main species farmed (Huntington *et al.,* 2023). • Poole Harbour contains the largest production of Pacific oysters in England. The UK oyster fishery relies on Pacific oysters for over 95% of landings and was valued at £13 million in 2012. Quantities are noted to have increased from 450 tonnes in 2011 to 1150 in 2021 emphasising the importance of this species (FAO, 2021; Humphreys *et al.,*2021; Humphreys *et al.,* 2014).
(b) the fishing capacity of fleets is such that fleets are economically viable but do not overexploit marine stocks	• Aquaculture is limited to areas of lease bed within the extent of The Order, the footprint of lease beds is based on understanding of viable areas for aquaculture where there is not a risk to environmental designations or stocks combined with an understanding of the capacity for aquaculture activity and the appropriate number of operators based on historic activity and expert knowledge. • Much of the stock inputs to the aquaculture operations come from hatchery reared spat or spat/wild stock which is obtained through fisheries where strict management is applied to ensure that stocks remain sustainable, for example the Poole Harbour Dredge Permit Byelaw. • Shellfish is commonly relayed into Poole Harbour from within a limited area (defined by Cefas as mollusc area 12b), the relatively limited geographic size of this area allows for the potential for spat produced from bivalves cultivated on lease beds to contribute to wild stocks.
The Precautionary Objective	

(a) the precautionary approach to fisheries management is applied	• Aquaculture in Poole Harbour is managed in line with:
	  ○ the outputs of the HRA for the issuing of leases (current version 2025-2030) ensuring that management is appropriate to avoid an adverse effect on the Poole Harbour SPA and be compatible with Poole Harbour as a SSSI and Ramsar Site.
	  ○ a biosecurity plan which ensures that appropriate risk assessments and processes are in place to avoid risks to the marine environment, and which provides a framework for the monitoring of shellfish movements and annual stock levels
	• The Management Plan for The Order is reviewed on an annual basis and any updates to management can be made at any point in accordance with due process to be adaptive to changing circumstances or the emergence of unforeseen factors
	• Managing aquaculture under a several order provides the Southern IFCA, as the relevant body, with the ability to manage aquaculture within a defined framework, limiting access and development management to ensure sustainable practice.

(b)	exploitation of marine stocks restores and maintains populations of harvested species above biomass levels capable of producing maximum sustainable yield	• Aquaculture in Poole Harbour is carried out by a defined number of expert operators who have significant experience in understanding appropriate carrying capacity for farmed species. • Much of the stock inputs to the aquaculture operations come from hatchery reared spat or spat/wild stock which is obtained through fisheries where strict management is applied to ensure that stocks remain sustainable, for example the Poole Harbour Dredge Permit Byelaw. • Shellfish is commonly relayed into Poole Harbour from within a limited area (defined by Cefas as mollusc area 12b), the relatively limited geographic size of this area allows for the potential for spat produced from bivalves cultivated on lease beds to contribute to wild stocks.
	The Ecosystem Objective	
(a)	fish and aquaculture activities are managed using an ecosystem-based approach so as to ensure that their negative impacts on marine ecosystems are minimised and, where possible, reversed	See 'The Sustainability Objective' (a)(i)
(b)	incidental catches of sensitive species are minimised and, where possible, eliminated	• Aquaculture in Poole Harbour is managed in line with the outputs of the HRA for the issuing of leases (current version 2025-2030) ensuring that management is appropriate to avoid an adverse effect on the Poole Harbour SPA and be compatible with Poole Harbour as a SSSI and Ramsar Site. • Management is implemented to avoid impacts to sensitive species, the Lease Bed Reallocation Programme undertaken for T2 (2020-2025) removed any overlap between aquaculture activity and the presence of the peacock work *Sabella pavonina*, a notable community under the SSSI. • Aquaculture activities taking place under The Order use very selective fishing methods which ensures incidental catches are minimised.
	The Scientific Evidence Objective	
(a)	scientific data relevant to the management of fish and aquaculture activities is collected	• Leaseholders are required to submit shellfish movement information to Southern IFCA and Cefas. Southern IFCA collate annual records of all shellfish movements under The Order. • Southern IFCA carries out on-sight inspections of shellfish imports to monitor against any biosecurity risks. • Periodic monitoring of Pacific oysters has been carried out to monitor the location and extent of wild populations in relation to the presence of aquaculture for this species. Most recent monitoring in 2021-2022 has been compared to historic monitoring and location/extent of this species in neighbouring sites without aquaculture present to ensure an understanding of the potential relationship between farmed and wild populations and to inform the need for future monitoring.
(b)	where appropriate, the fisheries policy authorities work together on the collection of, and share, such scientific data	• Southern IFCA work closely with Cefas to ensure the provision of data relating to shellfish movements and to facilitate annual inspections where data relating to The Order is shared and reviewed. • The Cefas FHI is notified of any suspected disease occurrence and unexpected/large scale mortalities, Southern IFCA works with leaseholders to implement any required actions such as the taking of samples in response to any events. • Southern IFCA supports BCP Council by facilitating the collection of samples for shellfish waters testing which supports the classification of shellfish beds used by leaseholders under The Order.
(c)	the management of fish and aquaculture activities is based on the best available scientific evidence	• See 'Scientific Evidence Objective' (a) for details of evidence collected which is used to help inform management. • Southern IFCA ensure that best available evidence is used in each new draft of the HRA for the issuing of leases under The Order and works to collate data from all relevant sources to inform the underpinning evidence base, for

	example a review of the data collected to date on the location/extent of wild Pacific oyster populations in Poole Harbour.
The Bycatch Objective	
(a) the catching of fish that are below minimum conservation reference size, and other bycatch, is avoided or reduced	• Removal from lease beds of any species which is also subject to a wild fishery, for example Manila clam, common cockle, is subject to MCRS regulations. • Fishing methods are tailored to harvesting shellfish from lease beds which are the required size where the above size restrictions apply. All methods of harvesting have the ability for immediate return of any undersized individuals to the seabed in the area from which they were caught. • Aquaculture activities taking place under The Order use very selective fishing methods which ensures bycatch is minimised.
(b) catches are recorded and accounted for	• Leaseholders are required to submit shellfish movement information to Southern IFCA and Cefas. Southern IFCA collate annual records of all shellfish movements under The Order. • Removal of any wild stock for the purposes of relaying from within the Southern IFCA District is subject to recording processes under relevant legislation.
(c) bycatch that is fish is landed, but only where this is appropriate and (in particular) does not create an incentive to catch fish that are below minimum conservation reference size	• Not applicable, there is no landing of fish under The Order.
The National Benefit Objective	
fishing activities of UK fishing boats bring social or economic benefits to the United Kingdom or any part of the United Kingdom	See 'The Sustainability Objective' (a)(ii)
The Climate Change Objective	
(a) the adverse effect of fish and aquaculture activities on climate change is minimised	• Shellfish aquaculture has one of the lowest carbon footprints of any food production system. Bivalves, as filter-feeding organisms, take up organic and inorganic nutrients from the water column including dissolved CO2. Shellfish shells are primarily made from carbon rich calcium carbonate and can serve as carbon sinks with a relatively long turnover rate, effectively storing carbon. • Bivalve beds are noted to be blue carbon habitats which contribute to a significant amount of blue carbon stock through a combination of shell and tissue growth, sedimentation and burial in the sediment. • Seabed mussel cultivation, undertaken in Poole Harbour, has a greater shell carbon sequestration potential than suspended rope cultures with significantly more carbon sequestered into long-term shell storage (60.15 ± 0.77 kg) compared to rope culture (46.12 ± 1.69 kg) (van de Schatte Olivier *et al.,*2021). • Bivalve filter feeding increases water quality by cycling nutrients in the form of detritus and plankton, thereby enhancing the resilience of vegetative habitats including seagrasses and saltmarshes. *Zostera marina* beds in Poole Harbour are a significant carbon sink with *Z. marina* having been recorded to store a median of 110 g Carbon m^{-2} yr^{-1} through burial processes (Burrows *et al.,* 2017). Management through the extent of The Order prevents any overlap between aquaculture activity and seagrass beds in Poole Harbour.
(b) fish and aquaculture activities adapt to climate change	• The ability of bivalve shellfish to help mitigate the impacts of climate change indicates that resiliencies to climate change for these species.

	• Monitoring programs under The Order help understanding any changing patterns in activity or species over time which can be compared to environmental variables gathered by other bodies/agencies as required to understand any potential impacts of climate change. • Aquaculture in Poole Harbour is carried out by a defined number of expert operators who have significant experience in understanding changes to expected inputs/outputs and adapting to these. Communication between Southern IFCA and leaseholders is facilitated to maintain understanding of any changes over time.

As outlined in Management Plan 7 (Section 7.0 of this document), management of The Order in line with this document, lease conditions and outputs of the HRA for the issuing of leases for 2025-2030, includes actions which are contributing to Good Environmental Status (GES) within Poole Harbour by supporting each of the 11 qualitative descriptors under the Marine Strategy Regulations 2010.

The below table provides detail on each qualitative descriptor and how aquaculture under The Order is supporting the descriptor.

GES Qualitative Descriptor	Contribution from aquaculture activity under The Poole Harbour Fishery Order 2015
D1 – Biological Diversity (cetaceans, seals, birds, fish, pelagic habitats and benthic habitats) *Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions*	• Marine Protected Areas (MPAs) are listed as an important measure to protect biodiversity under this descriptor. Aquaculture under The Order is managed in line with the outputs of the HRA for the issuing of leases (current version 2025-2030) ensuring that management is appropriate to avoid an adverse effect on the Poole Harbour SPA and be compatible with Poole Harbour as a SSSI and Ramsar Site. • The descriptor also makes specific reference to the Birds and Habitats Directive. By ensuring that the aquaculture operations in Poole Harbour are compatible with site integrity for the Poole Harbour SPA, this is meeting the Southern IFCA's duties in relation to the Conservation of Habitats and Species Regulations 2017, as amended by the Conservation of Habitats and Species Regulations (Amended) (EU Exit) Regulations 2019, which transposes the land and marine aspects of the Birds Directive into domestic law. • The descriptor also talks about marine species and important marine habitats: (1) Cultivated bivalves contribute to the health of wild finfish populations. On-bottom bivalve aquaculture provides habitat complexity and increase nutrient cycling which can enhance the population of fish species as is found with natural reefs (Mascorda-Cabre *et al.*, 2021). ○ Bivalves help to improve water quality through filter feeding, which can have benefits for other species and habitats including designated supporting habitats of the SPA such as seagrass and saltmarsh which are also noted to be important essential fish habitats. (2) Bivalve filtration has been attributed to a reduction in epiphytes on temperate seagrass beds near aquaculture sites due to filtering seston and rapid nitrogen recycling (Brenner *et al.*, 2014).
D2 – Non-indigenous species *Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems*	○ Southern IFCA implement specific management for Pacific oysters, a non-native species cultivated under The Order, see S3.2.1 of this document for details. ○ The Biosecurity Measures Plan which accompanies The Order sets out management to mitigate the risk posed by non-indigenous species introduction, this mitigation also informs the outcome of the HRA for the issuing of leases (2025-2030) to ensure non-indigenous species do not pose a risk to the SPA, SSSI or Ramsar site.
D3 – Commercially exploited fish and shellfish	• Aquaculture is limited to areas of lease bed within the extent of The Order, the footprint of lease beds is based on understanding of viable areas for aquaculture where there is not a risk to environmental designations or stocks combined

Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock	with an understanding of the capacity for aquaculture activity and the appropriate number of operators based on historic activity and expert knowledge. • Much of the stock inputs to the aquaculture operations come from hatchery reared spat or spat/wild stock which is obtained through fisheries where strict management is applied to ensure that stocks remain sustainable, for example the Poole Harbour Dredge Permit Byelaw. • Shellfish is commonly relayed into Poole Harbour from within a limited area (defined by Cefas as mollusc area 12b), the relatively limited geographic size of this area allows for the potential for spat produced from bivalves cultivated on lease beds to contribute to wild stocks.
D4 – Food webs (cetaceans, seals, birds, fish and pelagic habitats) *All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity*	• The contribution under D1 and D3 contribute overall to the maintenance and support of food webs within Poole Harbour.
D5 – Eutrophication *Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algal blooms and oxygen deficiency in bottom waters*	• Aquaculture in Poole Harbour consists of cultivation of bivalve shellfish. Bivalves naturally filter excess nutrients (such as nitrogen and phosphorus) from the water, reducing the risk of eutrophication and the development of algal mats or harmful agal blooms. ○ Blue mussels and pacific oysters, the two most abundantly farmed species in Poole Harbour, have been shown to filter up to 62% of Poole Harbour depending on tidal factors (Gravestock *et al.,* 2020). • Bivalves help to improve water quality through filter feeding, which can have benefits for other species and habitats including designated supporting habitats of the SPA such as seagrass and saltmarsh which are also noted to be important essential fish habitats. • Bivalve filtration has been attributed to a reduction in epiphytes on temperate seagrass beds near aquaculture sites due to filtering seston and rapid nitrogen recycling (Brenner *et al.,* 2014). • Bivalves transport filtered particles from the water column to the sediment through bio-deposition made up of faeces, pseudo faeces and ammonia. This nutrient exchange between pelagic and benthic environments contributes to nutrient cycling and boots bacterial denitrification. This process leads to the removal of nitrogen from the marine ecosystem, helping to alleviate eutrophication (Williams *et al.,* 2018). • Farmed bivalve species including blue mussel show a preferential uptake for HAB species (Howarth *et al.,*2022).
D6 – Sea-floor integrity (pelagic habitats and benthic habitats) *Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystem, in particular are not adversely affected.*	• The Order is managed in line with the outputs of the HRA for the issuing of leases (current version 2025-2030) ensuring that management is appropriate to avoid an adverse effect on the Poole Harbour SPA and be compatible with Poole Harbour as a SSSI and Ramsar Site – this includes an assessment of the pressures of abrasion, smothering/siltation and penetration of the sediment. • All aquaculture activity in Poole Harbour is direct seabed culture (with the exception of a small deployment of mussel ropes, with no additional structure), there are no structures placed on the seabed.
D7 – Hydrographical conditions	• Impacts to hydrographic conditions are assessed as part of the HRA for the issuing of leases (current version 2025-2030), for the activities under The Order where all aquaculture involves direct seabed culture, with the exception of a small deployment of mussel ropes, the assessment process has determined that there is no risk to alteration of hydrographical conditions.

Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.	
D8 – Contaminants *Concentrations of contaminants are at levels not giving rise to pollution effects*	• See D2 – the Biosecurity Measures Plan also mitigates against the risk of contaminants and pollution from aquaculture activity. • Southern IFCA supports BCP Council by facilitating the collection of samples for shellfish waters testing which supports the classification of shellfish beds used by leaseholders under The Order.
D9 – Contaminants in fish and other seafood for human consumption *Contaminants in fish and other seafood for human consumption do not exceed levels established by Union legislation or other relevant standards.*	• Shellfish can actively remove contaminants from the water column by filtering them and depositing the contaminants in faeces or pseudo faeces. This biodeposit can be buried in the sediment, essentially removing the contaminants from marine systems. • Improved denitrification rates observed by bivalve aquaculture may remove pollutants from the water column and also reduce the transmission of disease to bivalves and other organisms through filtration and burial (Broszeit *et al.,* 2016; Burge *et al.,* 2016). Pacific oyster cultivation has been shown to reduce parasite loads and infections in blue mussel.
D10 – Litter *Properties and quantities of marine litter do not cause harm to the coastal and marine environment.*	• Compared to other forms of aquaculture, bivalve farming has relatively low energy input, low costs, and low technological feasibility (Feng *et al.,* 2023). No structures can be placed on the seabed in Poole Harbour in order to enable aquaculture to take place in a spatially competitive environment. Furthermore, almost all shellfish aquaculture in Poole is on-bottom aquaculture. These factors combined significantly reduce the risk of equipment loss pollution. • Litter is assessed as a specific pressure through the HRA for the issuing of leases (current version 2025-2030) and determined to not pose a risk to the MPA.
D11 – Introduction of energy, including underwater noise *Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment*	• Compared to other forms of aquaculture, bivalve farming has relatively low energy input, low costs, and low technological feasibility (Feng *et al.,* 2023). • Underwater noise and the introduction of light are assessed as specific pressures through the HRA for the issuing of leases (current version 2025-2030) and determined to not pose a risk to the MPA.