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Project UK: Round 1

Channel Scallop

Year 6 report

April 2023

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Contents

1. Introduction 2

1.1 Introduction 2

1.2 Structure of the report 2

2. Annual Review for Year 6 2

3. Benchmarking tool (BMT) for Year 6 12

Appendix A: Revised pre-assessment (conducted April 2022) 16

Appendix B: References 26

# Introduction

The **Marine Stewardship Council** (MSC) has contracted **Poseidon Aquatic Resource Management Ltd** to provide technical advice to the FIPs and conduct annual benchmarking of progress against the action plans. This contract also covers this final review and action plan update.

## Introduction

**Project UK** includes 12 fisheries, through eight Fishery Improvement Projects (FIPs). These fisheries were selected by the supply chain because they bring commercial, economic, and cultural benefits to UK communities. As part of Project UK, these FIPs address 61 individual actions. These actions address multiple milestones across a five-year period, representing best practice in working towards an environmentally sustainable future.

The first round of FIPs[[1]](#footnote-2) to participate in Project UK (Channel scallop, monkfish, plaice & lemon sole, and crab & lobster) were launched in 2017. So far, these fisheries have made demonstrable progress against their Action Plans, focusing on developing and documenting progress in stock assessment, fisheries data and mitigating environmental impacts.

The Channel scallop FIP has been extended by two years to April 2024. Progress against the new Action Plan for Year 6 & 7 of the FIP is provided in this report. A revised pre-assessment was undertaken in 2022 and provided in Appendix A showing assessment for individual Performance Indicators (PI) and scoring guideposts (SG) to version 2.1 of the MSC Fisheries Standard. A gap analysis has been undertaken to compare v2.1 against the updated v3 standard. This gap analysis is presented as a separate document and will inform the FIPs decision on whether to enter the In-Transition to MSC (ITM) program.

## Structure of the report

This report has been divided into three main parts:

1. **Annual review**: this assesses what progress has been made over the past year in addressing the actions in this FIP up to the end of the original five year FIP timescale.
2. **Benchmark**: this provides the scoring of the FIP at the end of year 6 to demonstrate where PI scores have changed within the categories of <60, 60-79 and 80.
3. **Appendix A - Revised pre-assessment**: this section documents the position of the FIP Channel scallop fishery with respect to individual Performance Indicators (PI) and scoring guideposts (SG) of the current (version 2.1) MSC Fisheries Standard.

# Annual Review for Year 6

This section presents the annual review for the Channel scallop FIP based on work progressed during year 6.

**Overview**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Fishery name:** UK English Channel King Scallop Dredge Fishery | | | | | | **Start date:** 01 January 2017 | | |
| **Fishery location:**  Western Channel (7e) and Eastern Channel (7d)  *Presumes UoC is UK vessels only, but could be outside UK waters e.g. in Baie de Seine* | | | **Fishing methods:**  Mechanical dredge  **UoA vessels**: all UK vessels | | | **Annual reviews:**  End Year 1: March 2018 Completed April 2018  End Year 2: March 2019 Completed April 2019  End Year 3: March 2020 Completed 14 April 2020  End Year 4: March 2021 Completed 12 May 2021  End Year 5: March 2022 Completed 6 April 2022  **End Year 6: March 2023 Completed 26 April 2023**  End Year 7: March 2024 | | |
| **Project leaders:** Project UK Fisheries Improvements – Round 1 | | | | | | **Improvements recommended by:** | | |
| **Overview of the Action Plan:**  This Action Plan has been extended for two years, up to March 2024. Actions and milestones completed in the initial five-year FIP have been removed and are available in version 5.3. This FIP is part of Project UK Round 1 and is applicable to UK vessels using mechanized dredge targeting king scallop in the Western (7e) and Eastern (7d) English Channel. It has been informed by an MSC pre-assessment (completed in 2017), revised pre-assessment (completed in 2022, see Appendix A), quarterly steering group meetings and a review process at end of Years 1 to 6. Actions and milestones have been completed for the MSC performance indicators (PIs) that fail to reach Scoring Guideposts (SG) 60 and/or 80. The Action Plan highlights an ambitious set of actions designed to raise the scores over a defined period to a point at which the fishery could enter MSC assessment. The focus of the action plan is outlined for each MSC Principle below. | | | | | | | | |
| **Principle 1 (target stock):** | | | **Principle 2 (ecosystem):** | | | | | **Principle 3 (management):** |
| * defining appropriate reference points, * development of **Harvest Strategy**, * development of harvest control rules and tools at stock level, | | | * Delivering fishery dependant ETP monitoring, * Demonstrating implementation of iVMS, * Defining where effects remain a concern for ETP and habitat interaction and developing appropriate management strategies. | | | | | * development of a Fisheries Management Plan, including documenting stakeholder roles and responsibilities, and development of short- and long-term fishery objectives. |
| It should be noted that a separate FIP for UK scallops in the North Sea, West of Scotland and Irish Sea is being undertaken by Project UK Round 2. | | | | | | | | |
| Colour code in tables below: | Principle 1 | Principle 2 | | Principle 3 | Recommendations | |  | |

**Annual Review (end of year 6)**

This section summarises the annual review process at the end of year 6 in a seven year Fisheries Improvement Project (FIP) for the UK English Channel king scallop dredge fishery, providing a review of the progress made in year 6. The FIP has been extended up to April 2024.

**Main findings**

Progress in Year 6 is depicted in the BMT trackers for the 7.d.N eastern north stock indicating the position of the fishery with respect to overall BMT score.

The Joint Fisheries Statement committed to the development of an English and Welsh Scallop Fisheries Management Plan (FMP) which is being delivered via co-management via the Scallop Industry Consultation Group Working Group (SICGWG), with support from Seafish. The draft FMP is imminently being published for stakeholder consultation, with an array of consultation events scheduled, which are designed to facilitate discussion and debate around the opportunities for management approaches. Significant work has progresses in year 6 of the FIP to produce a draft FMP and clear inclusive consultation strategies are being implemented.

Despite this, the overall harvest strategy and fishery management mechanisms for Channel scallop remain in-complete and mismatched; within the UK EEZ there is effort control for 15m UK vessels and total catch control (yet to be implemented) for non-UK vessels; while outside the UK EEZ there is total catch control (yet to be implemented) for UK vessels.

The FIP remains at <60 scoring guidepost for harvest strategy and harvest control rules, and this remains a priority for the remainder of the FIP. The stock management should be designed to ensure it can be responsive to the status of individual stocks within the Channel reflected in the annual stock assessments and advice delivered by Cefas (Lawler *et al.*, 2023). The most recent stock assessment (April 2023) has shown signifincat increase in the harvest rate within the Lyme Bay stock, which has resulted in a score decrease to **<60** (which represents the only score change in Year 6 of this FIP). All other Channel stocks are harvested at or below MSY and therefore remain at **≥80.**

Progress in Principle 2 included implementation of iVMS for vessels under 12m (to be complete in May 2023), and exploring how this iVMS data can be made available as evidence to improve knowledge of the spatial footprint of under 12m vessels, specifically inside 6 nautical miles. This will inform the ETP and habitats management PIs. Progress has been made through development of management measures for Marine Protected Areas, including implementation for one site in the Channel in 2022 and determination of management measures for two further sites (yet to be implemented). Full implementation of all MPA management measures is expected by end of 2024.

Principle 3 actions continue to address Fisheries-Specific Management, through development of a FIP Fisheries Management Plan (FMP); the harvest strategy and HCR will link to the English and Welsh Scallop FMP being delivered through the SICGWG, with the FIP FMP focused on other aspects relevant to the MSC standard, including documenting environmental interactions.

**Action Plan**

| **Standard requirement** | **Lead & partners** | **Timescale / milestones** | **Progress / outcome** | **Revised milestone** |
| --- | --- | --- | --- | --- |
| **Action 1: Stock status & stock rebuilding**  **1.1.1 Stock status**  WEC Lyme Bay: **< 60;**  WEC inshore, WEC offshore & EEC **≥80**  Requirement at SG80:   1. it is highly likely that the stock is above the PRI 2. The stock is fluctuating around a level consistent with MSY   **1.1.2 Stock rebuilding**  Requirement at SG80:   1. A rebuilding timeframe is specified | **Action lead:** Cefas  **Partners:** Defra  **Stakeholders:** Industry, MMO, Marine Scotland  **Resources:** ICES Scallop WG | **1a.** Yr. 6-7: Develop and define reference points related to point of recruitment impairment (PRI) for each stock. | **In progress**  Cefas have undertaken king scallop dredge surveys in the English Channel from 2017 to 2022, with surveys planned in 2023. The stock assessment (Lawler *et al.,* 2023) assesses the biomass available to the dredge fishery and evaluates whether current fishing levels are considered sustainable relative to an MSY proxy reference point.  The fishing mortality which generates 35% of the virgin spawning potential (F35%VSpR) is used as a reasonable approximation for an MSY reference point for each stock.  Based on the time-series of data available and using the same model as previous assessments, Cefas updated the MSY reference points in 2023.  A reference point relative to recruitment impairment (PRI) is not yet available.  It is noted that Cefas reviewed the stock assessment areas in 2022 with the redefined areas incorporated into the stock assessment published in April 2023. |  |
| **1b.** Yr. 6 & 7: Review stock assessments to determine status of each stock with respect to available reference points. | **Compete for Year 6 (to be repeated in Year 7)**  The 2023 stock assessment (Lawler *et al.,* 2023) provided data on the harvest rates relative to MSY for the four Channel scallop stocks, with the time-series presented in Figure 1. The trends in harvestable biomass (from the dredged parts of assessment areas, based on survey estimate, tonnes) is presented in Figure 2, which also indicates the average harvestable biomass based on the 6-year time-series. [Note: this average harvestable biomass is not defined as or used as a reference point]. Findings are summarised as:   * Eastern English Channel (EEC) 27.7.d.N: the harvest rate dropped significantly in 2019 and is now fluctuating around HRMSY. The harvestable biomass has fluctuated around its average level and is currently just below the average. Score remains **≥80**. * Western English Channel (WEC) Inshore 27.7.e.I: the harvest rate has been above the HRMSY early in the time series, but fell below HRMSY in 2018, where it has remained ever since. A slight increase in HR is noted from 2020 to 2021. Harvestable biomass has remained around the average from 2018 to 2022 and appears stable. Score remains **≥80**. * WEC Lyme Bay 27.7.e.L: the harvest rate has been above HRMSY for the entire time series (2016 to 2021). The harvest rate was over 3 times the HRMSY in 2018, dropped significantly in 2019 towards HRMSY, but has increased since then. In 2020 HR was double MSY and in 2021 HR was over 3 times HRMSY. The harvestable biomass is relatively low compared to the other assessment areas. Current levels are below the average time-series. High HR which is well above HRMSY has led to score change from **60-79** to **< 60**. * WEC Offshore 27.7.e.O: the harvest rate has been well below the MSY candidate reference point throughout the time series. The 2023 stock assessment report shows that the harvestable biomass of the dredged portion of the WEC Offshore assessment area dropped from 2020 to 2021 but has increased from 2021 to 2022 and is above average levels. Score remains **≥80**. |  |
| **1c.** Yr. 6-7:.Develop a rebuilding strategy for WEC Lyme Bay, including specified timeframe. | **In progress**  A rebuilding strategy has not been specified, however, proposals for king scallop fishery closures in ICES area 7d and Lyme Bay of area 7e are acknowledged. The proposal is to close areas of 7d for stock spawning protection, and close Lyme Bay to avoid displacement into an already exploited area (UK Government, 2023).  In 2022 the EU introduced a seasonal closure in EU waters of area 7d and some of 7e (North Finistère) to protect king scallop stocks, prohibiting UK and EU dredge vessels. The closures will be in place for the first time from 15 May to 30 September 2023. The UK fisheries administrators recognise advice that suggests the stock in Lyme Bay (7e) has been over exploited in the past and would be vulnerable to displacement from a 7d closure. The proposal explores options for the time period of closure during summer 2023 and the option to include only 12m+ vessels or all vessels (UK Government, 2023). |  |
| **Action 2: Harvest Strategy**  1.2.1 Harvest Strategy **< 60**  Requirement at SG80:(a) The harvest strategy is responsive to the state of the stock.  (b) The harvest strategy is achieving its objectives (although may not be fully tested). | **Action lead:** SICG  **Partners:** Cefas, ICES WG Scallop, IFCA, Industry, Defra  **Stakeholders:** Marine Scotland | **2a.** Yr. 6-7: Define harvest strategy with stock areas incorporated into management planning. | **In progress**  Under the UK Fisheries Act and as defined in the Joint Fisheries Statement (JFS), the King Scallop Fishery Management Plan is being developed as a joint plan between Defra and Welsh Government to cover stocks in English and Welsh waters out to 200 NM.  The English and Welsh Scallop FMP is being developed by a co-management group, with a sub-group of the Scallop Industry Consultation Group (SICG) responsible for drafting the plan. Significant progress has been made in this process. A summary of objectives and measures being considered is provided below:  Harvest strategy:   * Robust HS, monitoring, stock assessment and HCR. * Overarching aims and objectives; Pragmatic, cost effective, adaptive, easy to understand, iterative. * Response to status of stock – stock areas. * Clear fishery specific strategy. * Updated as appropriate to meet management objectives. * Biological, social and economic data will be included.   Management approaches:   * High level based on working group discussions. * Scientifically base output control. * Scientifically based effort control. * Seasonal closures. * Harmonisation of measures.   Considerations when developing management approaches:   * Apply to all commercial sectors – national, local, inshore, offshore. * Improved efficiency.   The timeline for the delivery of the FMP is as follows:   * Public consultation on Draft FMP, from April/May 2023. * Publication of 1st Iteration of FMP: planned for September 2023 * 2nd Iteration: is anticipated 12-18 months later.   It is understood that the 1st iteration will not specify the harvest strategy being adopted, but will list management approaches that will be discussed and progressed during consultation events and SICG working group discussions.  The chosen management approach is expected to be set out within the 2nd Iteration (currently expected in March 2025). |  |
| **2b.** Yr. 7: Implement harvest strategy, which is responsive to the status of the stocks. | This action has not yet commenced. |  |
| **2c.** Yr. 7. Provide preliminary evidence that the harvest strategy is achieving its objective. | This action has not yet commenced. |  |
| **Action 3: HCR**  1.2.2 HCRs & tools **< 60**  Requirement at SG80:  (a) Well-defined HCRs are in place that ensure exploitation rate is reduced as PRI is approached and stock is expected to be consistent or above MSY.  (b) HCRs are likely to be robust to the main uncertainties.  (c) Available evidence indicates that tools in use are effective in achieving exploitation rates required under HCR. | **Action lead:** SICG  **Partners:** Cefas, ICES WG Scallop, IFCA, Defra  **Stakeholders:** Industry, Marine Scotland | **3a.** Yr. 6-7: Develop and implement harvest control rules related to relevant reference points. | This action has not yet commenced.  This action will be dependent on the outcome of the harvest strategy management approach as described in 2a. |  |
| **3b.** Yr. 7: Provide available evidence that the HCR tools are effective in reducing exploitation rates, e.g. modelling of effort reduction or catch scenarios. | This action has not yet commenced. |  |
| **Action 4: ETP**  2.3.1, 2.3.2, 2.3.3 ETP species outcome, management & information **60-79**  Requirement at SG80:2.3.1 (b): Direct effects of the UoA are highly likely to not hinder recovers of ETP species  2.3.2 (b) there is a strategy in place that is expected to ensure UoA does not hinder recovery of ETP species  2.3.3 (b) information is adequate to measure trends and support a strategy to manage impacts on ETP species. | **Action lead**: SG  **Partners**: JNCC, MMO, Natural England, Cefas, Industry, IFCAs, Defra  **Stakeholders**: Marine Scotland | **4a**. Yr. 7: Demonstrate recording and reporting of fishery dependant interactions data via the Clean Catch App. | **In progress**  The Clean Catch App has undergone significant work to rebuild the different ‘groups’ after testing last year revealed a number of technical errors. Group 1 is focussed on wildlife bycatch, and extensions have been made to the app to make it suitable for use on trawl and dredge vessels. Final internal testing should be complete by the end of February 2023, after which it can be trialled by fishing vessels.  An alternative App called [MoFI](https://play.google.com/store/apps/details?id=anchorlab.mofi&hl=en_GB&gl=US) is noted as a potential alternative if Clean Catch App is not successful. | Timeline updated to Yr. 7 in v6.2 |
| **4b**. Yr. 7: Define where direct effects of the fishery remain a concern for ETP species (including identifying ETP species and location). | This action has not yet commenced.  This action is in part dependant on the iVMS evidence (5a) to determine any risk for inshore waters where under 12m vessels may operate. | Timeline updated to Yr. 7 in v6.2 |
| **4c.** Yr. 6-7: Develop and implement ETP management strategy. | **In progress**  See 5c. |  |
| **Action 5: Habitats & ecosystem**  2.4.1 & 2.5.1, 2.4.2, 2.4.3, Habitat & Ecosystem outcome, Habitat management & information **60-79**  Requirement at SG80:  **2.4.1:** The UoA is highly unlikely to reduce VME habitats to a point where there would be serious or irreversible harm.  **2.4.2(a):** There is a partial strategy in place; (b) with objective basis for confidence it will work; (c) evidence it is being implemented successfully.  **2.4.3(b):** reliable information on spatial extent, location & timing of fishing gear. | **Action lead:** Seafish SAG  **Partners:** Cefas, Industry, IFCAs, Defra, JNCC, MMO  **Stakeholders:** Marine Scotland | **5a.** Yr 6-7: Provide evidence of successful implementation of iVMS for under 12m vessels. | **In progress**  iVMS is in the process of final implementation stages and is expected on all vessels by May 2023. It remains unclear what evidence can be provided to determine spatial footprint of dredge vessels under 12m in length. This remains a concern for environmental advisors on the steering group. Actions are focused on investigations into the provision of iVMS data in amalgamated format that does not cause confidentiality issues. |  |
| **5b.** Yr. 7: Define where direct effects of the fishery remain a concern for habitats, including MPA, VMEs and commonly encountered habitats (including identifying habitat species and location). | This action has not yet commenced.  This action is in part dependant on the iVMS evidence (5a) to determine any risk for inshore waters where under 12m vessels may operate. | Timeline updated to Yr. 7 in v6.2 |
| **5c.** Yr 6-7: Develop and implement habitat management strategy. | **In progress**  In 2021, the MMO consulted on management measures for four MPAs, one in the English Channel, and these measures were implemented in April 2022. In June 2022, the MMO consulted on management measures for the next tranche of MPAs, including a further two in the English Channel. Management measures are also expected to be rolled out in those MPAs in due course, and full management measures are expected for all currently designated MPAs by the end of 2024. |  |
| **Action 6: Governance and management**  **3**.1.2 Consultation roles & responsibilities**: 60-79**  3.2.1 Fishery-specific objectives**: 60-79**  3.2.2 Decision-making processes: **60-79**  Requirement at SG80:  3.1.2 (a): Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction.  **3.2.1(a):** Short and long term objectives, which are consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are explicit within the fishery-specific management system.  **3.2.2 (a)** There are established decision-making processes that result in measures and strategies to achieve the fishery-specific objectives. | **Action lead:** SICG  **Partners:** ICES WG Scallop, Defra, Industry, IFCAs.  **Stakeholders**: Marine Scotland | **6a**. Yr 6-7: Develop Fishery Management Plan. | **In progress**  The harvest strategy and harvest control rules sections of the FIP FMP are being delivered through the English and Welsh Scallop FMP (see 2a). This will also document short and long term objectives for stock management and environmental interactions.  The consultation roles and responsibilities are in the process of being established through the development of the FMP. A co-management approach is being delivered via the partnership between the SICG and Defra to draft and deliver the FMP. |  |
| **6b.** Yr 6-7:Consult on Fishery Management Plan | **In progress**  The English and Welsh Scallop FMP has a defined consultation timeline. This includes consultation on the draft FMP in spring/summer 2023, ahead of formal publication in autumn 2023. A series of consultation events have been organised across England, Wales and Scotland, including in person and virtual meetings from Sep-Nov 2023.  Consultation roles are understood, but not yet explicitly defined. |  |
| **6c.** Yr 7: Implement Fishery Management Plan. | This action has not yet commenced. |  |
| **Action 7: Recommendations** | Action lead: Steering group  Partners: Defra, Industry, Cefas, IFCAs | **7a.** Future labour requirements - ensure the fishery remains in scope of MSC with regards to any future labour requirements and the current scope requirement: No vessel shall be eligible that has had a conviction in the last 5 years. |  |  |
| **7b.** Principle 1 – Circulate final report on larval distribution | **In progress**  Some work has been published on this (Thiébaut *et al*., 2015). It is understood that Cefas have undertaken the modelling of larval distribution, but the reporting is yet to be published. The 2023 stock assessment (Lawler *et al.,* 2023) states that “*studies of larval drift between beds indicate incomplete connectivity, whereby the main dredged areas appear to have a degree of larval retention (i.e., they are self- perpetuating).”* |  |
| **7c.** Principle 2 - Obtain any further research on representative catch data to build knowledge base on primary and secondary species. |  |  |
| **7d.** Principle 3 – Undertake an external review of Channel Scallop FMP. |  |  |

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Figure 1: Harvest rate on dredged portion of the stock relative to HRMSY defined as a proxy for MSY (Data source: Cefas, 2023)

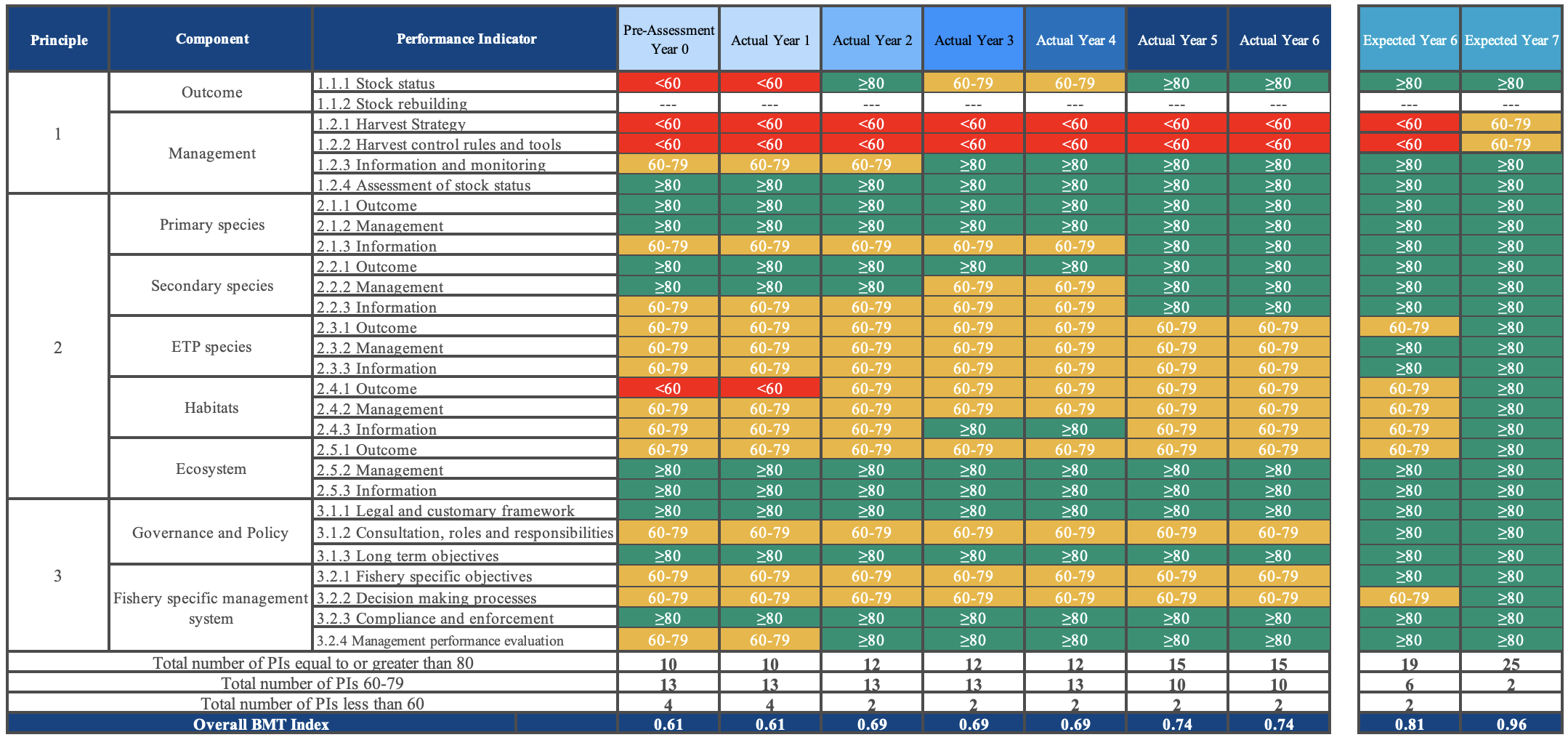
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Figure 2: Harvestable biomass in dredged parts of assessment areas based on survey estimate (tonnes), indicating average from 6-year time-series (Data source: Cefas, 2023)

# Benchmarking tool (BMT) for Year 6

### Western English Channel (WEC) inshore (7.e.I)



### WEC Lyme Bay (7.e.L)

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### WEC Offshore (7.e.O)

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### Eastern English Channel (EEC, 7.d.N)

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# Appendix A: Revised pre-assessment (conducted April 2022)

**Summary of Performance Indicator level scores**

### Principle 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Performance Indicator** | **Draft scoring range** | **Data deficient?** | **Issue** | **SG60** | **SG80** |
| **1.1.1 – Stock status – WEC inshore [7.e.I]** | **≥80** | No | a | ✓ | ✓ |
| b | - | ✓ |
| Rationale: Updated assessments based on improved landings data - including international data. HR has been at or below HRMSY since 2018 and the stock is therefore considered to be at MSY. | | | | | |
| **1.1.1 – Stock status – WEC Lyme Bay [7.e.L]** | **60 – 79** | No | a | ✓ | ✕ |
| b | - | ✕ |
| Rationale: The harvest rate was over 3 times the MSY in 2018, but has dropped significantly in 2019, with this downward trend continued in 2020. The HR is currently twice the HRMSY level. Given the dramatic decrease in exploitation rate, it is considered likely that the stock is above PRI. Scoring for stock status has therefore remained at 60-79. | | | | | |
| **1.1.1 – Stock status – WEC offshore [7.e.O]** | **≥80** | No | a | ✓ | ✓ |
| b | - | ✓ |
| Rationale: Current HR is below HR MSY and has been for three year time series. Therefore highly likely to be above PRI and at least at (if not above) MSY. This stock shows a drop in harvestable biomass available based on 2021 surveys. This is not yet equated into a 2021 harvest rate for the stock. Given the very low HR compared to HRMSY, the drop in harvestable biomass is not expected to alter the >80 assessment. | | | | | |
| **1.1.1 – Stock status – EEC [7.d.N]** | **≥80** | No | a | ✓ | ✓ |
| b | - | ✓ |
| Rationale: The HR dropped to MSY level in 2019 where it has remained in 2020. Improved data improves the certainty around this assessment. | | | | | |
| **1.1.2 – Stock rebuilding – WEC Lyme Bay [7.e.L]** | **<60** | No | a | ✕ | ✕ |
| b | ✓ | ✕ |
| Rationale: Where 1.1.1 does not reach SG80, PI 1.1.2 is scored. Based on the 1.1.1 assessment, a rebuilding strategy is required for the WEC Lyme Bay stock. This requires a rebuilding timeframe to be specified and evidence that the strategies are rebuilding the stock. Scallop generation time is 2-5 years, and therefore the rebuilding timeframe should be between 5 to 10 years.  Monitoring in the form of survey and stock assessment is in place and therefore SG60b is met. SG80b requires evidence of rebuilding or modelling to show it is likely within the timeframe. | | | | | |
| **1.2.1 – Harvest Strategy** | **<60** | No | a | ✕ | ✕ |
| b | ✕ | ✕ |
| c | ✓ | - |
| d | - | - |
| e | N/A | N/A |
| f | ✓ | ✓ |
| Rationale: While there is some limitation on fishing effort through the Western Waters effort regime, this is only for 15m vessels, with effort by <15m not currently manageable. There is no overall control of fishing effort in each of the stock units identified and therefore, management is not responsive to the status of the stocks.  There are no defined steps to take when HR MSY is exceeded and there are no defined limit reference points.  There is robust monitoring for the fishery, including landings recorded through Registration of Buyers and Sellers and iFISH database, VMS on 12m vessels and iVMS being implemented on vessels <12m, IFCA Byelaws and enforcement, Cefas observer programme and Cefas surveys and stock assessments.  The target species is not a shark and therefore issue e is not scored. There has been considerable work in documenting the range of alternative measures that have been researched and are currently ongoing, via gear sampling. The steering group provides a forum to discuss further developments and share best practice and knowledge in this area. Gear trials for scallop dredgers fitted with skids have been ongoing in 2021/2022, with final reporting expected later in 2022. | | | | | |
| **1.2.2 – Harvest control rules and tools** | **<60** | No | a | ✕ | ✕ |
| b | - | ✕ |
| c | ✕ | ✕ |
| Rationale: There are currently no HCR rules defined that are linked to reference points. There is no evidence that control measures are response to stock status for individual stocks. | | | | | |
| **1.2.3 – Information and monitoring** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | ✓ | ✓ |
| Rationale: Stock assessments are undertaken annually, stock structure (stock assessment areas defined), productivity known (biomass estimated), fleet composition known, based on fishing licences and scallop licences. Other data includes UK MMO iFISH database of landings by ICES rectangle and by port of landing and VMS data. | | | | | |
| **1.2.4 – Assessment of stock status** | **≥80** | No | a | - | ✓ |
| b | ✓ | ✓ |
| c | ✓ | ✓ |
| d | - | - |
| e | - | ✓ |
| Rationale: A range of sources inform the stock assessments including annual surveys, the observer programme, robust data on removals via Registration of Buyers & Sellers and iFISH database; and improved landings data for international landings was noted in the Cefas 2022 stock assessments.  The stock assessments estimate stock status relevant to HR MSY. Major sources of uncertainty are identified and taken into account e.g. international landings.  The stock assessments are subject to peer review through the ICES Scallop Working Group. | | | | | |

### Principle 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Performance Indicator** | **Draft scoring range** | **Data deficient?** | **Issue** | **SG60** | **SG80** |
| **2.1.1 – Primary Outcome** | **≥80** | No | a | ✓ | ✓ |
| b | - | - |
| Rationale: The Cefas King Scallop Catch Composition Report (Santos and Lawler, 2021) confirms that there are no main primary species in the scallop dredge fishery. Therefore SG80 is met. | | | | | |
| **2.1.2 – Primary Management** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | - | ✓ |
| d | N/A | N/A |
| e | ✓ | ✓ |
| Rationale: No main primary species; SG80 is met. | | | | | |
| **2.1.3 – Primary Information** | **≥80** | No | a | ✓ | ✓ |
| b | - | - |
| c | ✓ | ✓ |
| Rationale: The Cefas King Scallop Catch Composition Report (Santos and Lawler, 2021) combines data from the Cefas Observer Programme and national landing statistics to provide a weight based proportion of the total catch. This is considered to qualify as some quantitative data and SG80 is met. | | | | | |
| **2.2.1 – Secondary Outcome** | **≥80** | Yes | a | ✓ | ✓ |
| b | ✓ | ✓ |
| Rationale: The Cefas King Scallop Catch Composition Report (Santos and Lawler, 2021) confirms that there are no main secondary species in the scallop dredge fishery. Therefore SG80 is met. Note, this does not include non-commercial invertebrate species, such as star fish. It is recommended to continue to collate catch composition data from other scallop dredge fisheries to provide further context to the likely levels of non-commercial invertebrates within the catch. | | | | | |
| **2.2.2 – Secondary Management** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | - | ✓ |
| Rationale: No main primary species; SG80 is met. A partial strategy is in place based on a range of measures including: Western Waters management regime; protections within a number of MPAs and IFCA Byelaws that include temporal and spatial restrictions to scallop dredge gear. Note that non-commercial invertebrate distribution is likely to extend beyond scallop dredge habitats. | | | | | |
| **2.2.3 – Secondary Information** | **≥80** | No | a | ✓ | ✓ |
| b | - | - |
| c | ✓ | ✓ |
| d | N/A | N/A |
| e | ✓ | ✓ |
| Rationale: As 2.2.1. In addition, the alternative measures paper produced for Round 2 is applicable to Round 1, as described in 1.2.1. | | | | | |
| **2.3.1 – ETP Outcome** | **60 – 79** | No | a | N/A | N/A |
| b | ✓ | ✕ |
| c | - | ✕ |
| Rationale: The Cefas King Scallop Catch Composition Report (Santos and Lawler, 2021) identified limited interaction with ETP species, with some incidental catch of ray species, including starry ray. Based on the distribution of starry ray, it is considered likely that the scallop dredge fishery will not hinder recovery. Sufficient knowledge on the level of interaction is not available to determine this to a ‘highly unlikely’ SG80 category. | | | | | |
| **2.3.2 – ETP Management** | **60 – 79** | No | a | N/A | N/A |
| b | ✓ | ✕ |
| c | ✓ | ✕ |
| d | - | ✕ |
| e | ✓ | ✕ |
| Rationale: There are measures in place in the form of IFCA byelaws and MPA closed areas, but not a cohesive strategy. There is some consideration of alternative measures to minimise mortality (release rays back to sea and how to handle rays on board), but this is not formalised or regular practise. | | | | | |
| **2.3.3 – ETP Information** | **60 – 79** | No | a | ✓ | ✓ |
| b | ✓ | ✕ |
| Rationale: The Cefas King Scallop Catch Composition Report (Santos and Lawler, 2021), together with landing statistics provides some quantitative information on the interaction with ETP species, but this does not cover all species e.g. invertebrates. Further information, including self-reporting, would improve knowledge to support an ETP strategy. | | | | | |
| **2.4.1 – Habitats Outcome** | **60 – 79** | No | a | ✓ | ✓ |
| b | ✓ | ✕ |
| c | ✓ | - |
| Rationale: The Project UK Channel Scallops Habitat Assessment (Newstead et al., 2020) provides evidence that dredging within the channel is highly unlikely to reduce the structure and function of commonly encountered habitats to the point of serious or irreversible harm. The relative benthic status (RBS) score per habitat type indicated that for the largest habitat present in subarea VIIe (A5.15) had an RBS score of 0.74 under current fishing, but which would recover to >0.8 within a few years. This meets SG80 for 2.4.1a.  The objectives and management measures within existing MPAs (MCZs and SACs) are considered to meet the SG60 requirement for vulnerable marine ecosystems (VMEs).  The Newstead et al. (2020) report identified three species as VME indicators (*Sarcodictyon roseum*, *Amphianthus dohrnii* and *Arctica islandica*), with RBS scores below 0.8 and recovery unlikely within 20 years, this raises concern for VMEs and points to further management requirements to allow SG80 to be met. In addition to VME indicator species, concern was also identified for the East of Start Point MCZ with qualifying feature of subtidal sand (A5.2). VMS data indicates an overlap of the scallop dredge fishery within this MCZ. | | | | | |
| **2.4.2 – Habitats Management** | **60 – 79** | No | a | ✓ | ✕ |
| b | ✓ | ✕ |
| c | - | ✕ |
| d | ✓ | ✕ |
| Rationale: There are measures in the form of IFCA byelaws and MPA management, including temporal and spatial closure, as well as technical gear restrictions. However, this is not a partial strategy and does not work to manage the impacts identified in the Newstead et al (2020) report, therefore SG80 is not met. | | | | | |
| **2.4.3 – Habitats Information** | **60 – 79** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | ✓ | ✕ |
| Rationale: There is a very good level of detail to inform the habitat assessment for scallop dredge fishery in the Channel. The range of habitat types, VMEs and sensitive species are well documented. Based on the information presented in 2.4.1, it is clear that data is appropriate to support the development of a habitats strategy for scallop dredging.  One area of concern, that has been raised by a member of the Round 1 Steering Group, is the lack of spatial footprint data for scallop dredge vessels <12m in length.  There are 33 UK vessels under 12m that hold a scallop licence and are registered to administrative ports located in the Channel area. Of these, 18 are non-sector and 15 are a member of a Producers Organisation (PO) (including Cornish Fish PO and South Western Fish PO) (based on data provided in Defra vessel lists). There are no UK vessels under 10m in length that hold a scallop licence.  The 33 vessels under 12m that hold a scallop licence have their administrative port listed as: Brixham (10), Plymouth (8), Newlyn (7), Hastings (5) and Poole (3). The majority of the 33 vessels are based from administrative ports within the Devon and Severn IFCA jurisdiction (18), as well as the Cornwall IFCA (7), Sussex IFCA (5) and Southern IFCA (3).  Management of scallop dredging within each of these IFCA jurisdictions can be summarised as follows:  Devon and Severn IFCA have a **Mobile Fishing Permit Byelaw** which includes both temporal and spatial restrictions on scallop dredging, along with technical restrictions on the gear. There are closures to scallop dredging in the following marine protected areas (in some cases there is access to parts of the MPA): Lundy SAC and Lundy MCZ; Lyme Bay and Torbay SAC; Torbay MCZ; Plymouth Sound and Estuaries SAC; Start Point to Plymouth Sounds and Eddystone SCI; Skerries Bank and Surrounds MCZ; Severn Estuary SAC. The features which are protected in those sites include; infralittoral and circalittoral rock, subtidal mud, seagrass and subtidal coarse sediment.  Southern IFCA have a **Bottom Towed Fishing Gear Byelaw** 2016, which sets out a series of closed areas for scallop dredging. As well as spatial management, temporal restrictions are in place (active dredging/fishing permitted between 07:00 to 19:00 only).  Graphical user interface  Description automatically generatedSussex IFCA have a **Fishing Instruments Byelaw** which prohibits scallop dredging within 3nm; **Scallop Closed Season Byelaw** prohibits scallop dredging anywhere in the district June to October inclusive. The only MPA outside 3nm, is Kingmere MCZ and this includes a prohibition for bottom towed gear except for in Zone 3 July - March. The designated features are black seabream, chalk and infralittoral rock with sediment veneer.  Cornwall IFCA have a **European Marine Sites (Closed Areas) Byelaw** **2** – whereby all bottom towed gear, including scallop dredging, is prohibited in all SACs (with the exception of the open zones in parts of the Start Point to Plymouth Sound SAC). A range of habitat features are protected, including: infralittoral reef, circalittoral reef, seagrass, maerl, large shallow inlets and bays, sandbanks slightly covered by sea water at all times, estuaries, pink sea fans, pink sea fan anemone and subtidal macrophyte dominated sediment. As well as spatial management, temporal restrictions are in place (active dredging/fishing permitted between 07:00 to 19:00 only).  The location of MPAs and associated MPA management, including bottom towed fishing gear closures are depicted below.  **Marine Protected Areas (top) and MPA related management of fisheries (IFCA, 2022)**  Map  Description automatically generated  Map  Description automatically generated  Map  Description automatically generated  Map  Description automatically generated  The rational for this PI meeting SG80 for scoring issues a and b is as follows:   * Reliable spatial data is available for all vessels 12m and over, with data up to 2020 currently publicly available. * The scallop grounds targeted outside 6 NM by vessels 12m and over are representative of the grounds that vessels under 12m would also target, outside 6 NM (as scallops are located in distinct areas which are well understood based on Cefas stock assessment and surveys). * The areas inside 6 NM are protected by a range of IFCA Byelaws which limit the temporal and spatial activity of scallop dredging. * The range of measures described below, indicate comprehensive management of the MPAs within IFCA jurisdiction. It is therefore considered that VMEs are appropriately managed within 6 NM. Within the 6 NM area, it is understood where scallop dredging is not occurring, based on area closures. * Uncertainty remains for the spatial footprint of the 33 under 12m vessels potentially fishing within 6 NM.   It can be postulated that it is known where these under 12m vessels are prohibited from fishing (i.e. based on MPA management measures), but concern remains related to their activity outside these areas, and also from an enforcement perspective to monitor compliance with MPA measures. Scoring issue c requires that reliable information on the extent of interaction and on the timing and location of use of the fishing gear is available. While this is accessible for vessels 12m and over, it is not yet available for under 12m vessels. Inshore VMS is being implemented throughout 2022, and it is anticipated that the entire UK scallop dredging fleet will have some form of vessel tracking in the near future. To take account of concerns raised in the Steering Group meetings, and the lack of knowledge on the location of fishing activity by the under 12m vessels, a precautionary assessment has been made for **scoring issue c, which does not meet SG80.** | | | | | |
| **2.5.1 – Ecosystems Outcome** | **60 – 79** | No | a | ✓ | ✕ |
| Rationale: The wider ecosystem effects of scallop dredging are well documented: a number of studies indicate that benthic communities in areas subject to a long history of scallop dredging will have become simplified to a suite of species that are relatively resistant to fishing disturbance (Currie & Parry 1996; Bradshaw et al. 2002; Brown 2013). Such impacts will be highly localised to dredged areas and are not expected to disrupt key elements at an ecosystem level to the point of serious harm. This is particularly relevant for the English Channel which is a highly dynamic and tidally dominated shallow marine system (Paphitis et al., 2010).  A SICA undertaken for scallop dredging in the Channel highlighted the knowledge gap related to the lack of spatial data for the under 12m vessels. The SICA confirmed that SG60 is met for ecosystem outcome status, but SG80 is not met.  The ecosystem effect is considered to be focused on potential impacts to species composition, functional group composition and distribution of communities as a result of the disturbance from the dredge gear penetrating the seabed, rather than the removal of scallops. A such, the ecosystem outcome status is likely to be closer aligned to footprint related management, including intensity and spatial overlap. | | | | | |
| **2.5.2 – Ecosystems Management** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | - | ✓ |
| Rationale: A range of measures exist including MPA, temporal and spatial restrictions, Western Waters effort regime. While not designed specifically for the ecosystem component, these are expected to work towards restraining overall impacts. There is some evidence that these measures are implemented successfully, via VMS and IFCA monitoring. | | | | | |
| **2.5.3 – Ecosystems Information** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | - | ✓ |
| d | - | ✓ |
| e | - | ✓ |
| Rationale: The English Channel is a well-studied ecosystem and good quality information is available for key elements e.g., productivity modelling, trophic work, and habitat mapping.  The impacts of scallop fisheries on these elements are adequately understood e.g., habitat damage, biomass removal, species size & maturation studies, etc. And the nature of impacted communities is understood, e.g. target and bycatch spp. (composition, volume & function), ETP e.g. skates / rays are known. Information covers both fisheries-dependent (landing statistics) and fisheries-independent variables (observer programme). | | | | | |

### Principle 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Performance Indicator** | **Draft scoring range** | **Data deficient?** | **Issue** | **SG60** | **SG80** |
| **3.1.1 – Legal and customary framework** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | ✓ | ✓ |
| Rationale: The Fisheries Framework consists of the Act and associated statutory instruments, relevant retained EU law, the JFS, Fishery Management Plans (FMPs), and the Fisheries Framework Memorandum of Understanding. The latter sets out principles on ways of working and collaboration on fisheries management between the fisheries policy authorities (Defra, 2022). The JFS defines how the fisheries policy authorities have understood the eight fisheries objectives of the Fisheries Act and how they will apply them to fisheries policy. The JFS covers sea fisheries policy and management within UK waters, and in negotiations with other coastal States. The JFS will also inform the UK’s approach to international agreements and engagement with international fora. | | | | | |
| **3.1.2 – Consultation, roles and responsibilities** | 60 – 79 | No | a | ✓ | ✕ |
| b | ✓ | ✓ |
| c | - | ✓ |
| Rationale:  UK roles are well defined with fisheries a devolved matter and therefore managed by authorities in the UK’s devolved authorities. Defra sets UK fisheries policy and for English waters with the MMO & IFCAs implementing that policy as management authorities. IFCAs operate out to 6nmiles and MMO in the English EEZ. The MMO acts as a policy and legal advisor on the process of making IFCA byelaws. The IFCA will consult the MMO at various stages of the byelaw making process (Defra, 2011) with Natural England the statutory agency providing advice on nature conservation out to 12nm.  Co-operative roles with the EU are defined in the Trade & Cooperation Agreement and are now established with the Partnership Council and Specialised Committees becoming operational (first meeting in July 2021 set out how the SCF would be organised and operate; second meeting in October 2021 set out a work plan and procedures).  Changes to legislation and the development of fishery management plans are subject to UK government consultation processes which provides opportunity for interested parties to be involved, including Consultation on Joint Fisheries Statements and Fisheries Management Plans.  The scallop FMP is currently being developed. There remains a need to fully understand the roles and responsibilities within the management being proposed within the scallop FMP. | | | | | |
| **3.1.3 – Long term objectives** | **≥80** | No | a | ✓ | ✓ |
| Rationale: The Fisheries Act 2020 and TCA agreement have MSY and precautionary objectives in line with the MSC criteria. The JFS (draft) sets out the fishery policy authorities interpretation of the eight objectives set out in the Act and how they will deliver them. | | | | | |
| **3.2.1 – Fishery specific objectives** | **60 – 79** | No | a | ✓ | ✕ |
| Rationale: SG80 requirement is for: “Short and long term objectives, which are consistent with achieving the outcomes expressed by MSC’s Principles 1 and 2, are **explicit** within the fishery and associated enhancement management system(s)”. They could currently be viewed as implicit (SG60) within current UK fisheries, but SG80 is not met.  The UK scallop FMP is currently being drafted and is understood to include a range of short and long term fishery specific objectives, that include P1 and P2 objectives. The English and Welsh aspects of this scallop FMP will be subject to a formal consultation process. | | | | | |
| **3.2.2 – Decision making processes** | **60 – 79** | No | a | ✓ | ✕ |
| b | ✓ | ✕ |
| c | - | ✕ |
| d | ✓ | ✕ |
| e | ✓ | ✓ |
| Rationale: Decision-making processes by the UK as an independent coastal state relate to management of UK stocks, shared stocks (with the EU and Norway) and the integration of scientific advice.  No established decision-making processes for fishery-specific objectives. The SG effectively undertakes this, together with SICG and Defra and IFCAs. Need to formalise this process. Management performance information is not readily available. | | | | | |
| **3.2.3 – Compliance and enforcement** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| c | ✓ | ✓ |
| d | - | ✓ |
| Rationale: Monitoring, Control and Surveillance (MCS) has not fundamentally changed with the UK departure from the EU. The UK and EU have agreed to continue to work together to “ensure efficient and effective control and enforcement, including the sharing of various, relevant data. Logbook data for UK vessels >12m fishing in EU waters is currently available, as is VMS positional data. Sanctions are applied consistently, there is some evidence that fishers comply and there is no evidence of systematic non-compliance. | | | | | |
| **3.2.4 – Management performance evaluation** | **≥80** | No | a | ✓ | ✓ |
| b | ✓ | ✓ |
| Rationale: Key parts of the management are evaluated, e.g. western waters. UK Fisheries Act includes review provisions for fisheries management plans. The TCA has provisions to be re-evaluated after 5.5 years. There is internal and external review and so the scoring is likely to be at 80. | | | | | |

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1. Following the success of Round 1, the Round 2 UK scallop and Nephrops FIPs were launched in 2019. Each includes three fishery areas around the UK (North Sea, West of Scotland, and Irish Sea), and so operate on a larger scale than Round 1 FIPs. [↑](#footnote-ref-2)