**Table 1: Action Plan overview**

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| **Fishery name: UK Western Channel and Celtic Sea crustacean pot fishery:****Brown crab (*Cancer pagurus)* andlobster (*Homarus gammarus*)** | **Start date:** 01 January 2017 |
| **Fishery location:**Western Channel (VIIe) (Crabs & lobster)VIIf, and part of VIIg (Lobster only) | **Fishing method:**Pots | **End date (anticipated):**31 December 2021 (5 years) |
| **Project leaders**:Project UK Fisheries Improvements (PUKFI) | **Improvements recommended by:**Poseidon |
| **Overview of the Action Plan:**Potting for edible crab and lobster is mainly, but not exclusively, an inshore fishing activity undertaken throughout the SW of England. The pre-assessment considers that, whilst there are a number of management measures already in place, including the availability of stock status reference points, these do not form a coherent, integrated harvest strategy. The main P1 actions therefore seek to address this, and further develop adaptive management mechanisms that makes management more responsive to the status of the stock. Whilst no PIs failed under the P2 assessment, many would likely attract conditions. The Action Plan addresses this through a review of alternative management measures to minimise UoA-related mortality of all non-target primary and secondary species caught by this fishery, as well as bolstering current monitoring and research to ensure there is sufficient information on which to base management changes. Although it is unlikely that this fishery will have a significant impact on ETPs, it is suggested that appropriate management measures need to be considered where necessary. This needs to be embedded in an on-going, risk-based ETP impact monitoring system.The governance and fisheries-specific management under P3 scored well in the pre-assessment. The only action proposed is the wider discussion and agreement of management needs and objectives with trans-boundary management authorities e.g. across IFCAs and (in the case of lobster), with the French and Irish MAs.

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| **Colour code in tables below:** | Principle 1 | Principle 2 | Principle 3 |

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**Table 2: Action Plan details**

| **Standard requirement** | **Actions** | **Resources required** | **Action lead** | **Action partners** | **Stake-holders** | **Timescale / milestones** |
| --- | --- | --- | --- | --- | --- | --- |
| 1. 1.2.1 Harvest strategy

The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1. There should also be a review of alternative measures.  | The current management measures and stock reference points need to be formulated into a coherent harvest strategy that include adaptive management measures where appropriate. This strategy would cover the UoA, thus spanning the inshore (<6 nm) IFCA managed areas and offshore areas under national management. | Fisheries management expertise | CEFAS& Industry as represented by Beshlie PoolMSC & Seafish to work on finding funding | IndustryIFCAs (hereafter refers to Cornwall, Devon & Severn, Scilly Isles & Southern)DefraMMO | WGCRAB | Overall timescale 3 years**6 months**. Position paper produced, inc. identification of effort distribution by different fleets around the UoA, and identifying current harvest strategies, gaps and potential conflicts. Needs to recognise different management needs of UoA segments e.g. UK inshore areas, offshore areas, etc.**Yr 2**: Based on the Position Paper, proposals for a holistic harvest strategy. **Yr 3**: Public consultation and formal acceptance of agreed strategy.  |
| 1. 1.2.2 Harvest control rules and tools

Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY.  | Based on the harvest strategy developed in Action #1, further development and formalisation of harvest control rules for that are both adaptive and where appropriate, precautionary. This would span the IFCA areas and include offshore (>6 nm) areas of the UoA.  | Fisheries management expertise | CEFAS  | IFCAsDefraMMO | IndustryWGCRAB | Overall timescale 4 years**Yr 2**: Develop proposals for harvest control rules, based on the strategies identified in Action #1 above. **Yr 3**: Proposals put out for consultation and finalised.**Yr 4**: Improved harvest control regime embedded in management processes.**Yr 5**. Review and finalisation of harvest control rules.  |
| 1. 2.1.2 Primary and 2.2.2 Secondary species management strategy

There is a partial strategy in place for the UoA, if necessary, that is expected to maintain or to not hinder rebuilding of the main primary and secondary species at/to levels which are highly likely to be above the PRI. | There is a need to review alternative management measures to minimise UoA-related mortality of all non-target primary and secondary species caught by this fishery.  | Expertise to undertake the review and identify potential mitigation measures | Seafish | CEFAS IFCAsIndustry – SD&CS | MMODefra | Overall timescale 2 years**Yr 1**: Conduct review of alternative management measures for non-target species.**Yr 2**: Mainstreaming of alternative measures into management.  |
| 1. 2.2.3 Information (secondary species)

Information adequacy for assessment of impact on main and minor secondary species, and for a management strategy. | Information available on secondary species caught by the fisheries quantified and made available to managers. This would form a more coherent, coordinated approach to monitoring of bycatch by the IFCAs.  | Observer / other monitoring programmes | South Devon and Channel Shellfishermen&Devon & Severn IFCA | IFCAs CEFASIndustrySeafish |  | Overall timescale 3 years**Yr 1**: Risk assessment carried out.**Yr 2**: Based on the risk assessment, further data collection (1° or 2°) as required (possibly via FSP funding).**Yr 3**. Formal report published.  |
| 1. 2.3.1, 2.3.2, 2.3.3 ETP species outcome, management and information

Effects of the UoA on populations within national / international limits.Management strategy in place.Information is adequate for the assessment of impacts and their management. | Information on the nature and scale of impacts on ETPs by these fisheries needs to be assessed. Based on this, appropriate management measures need to be developed, if required. This needs to be embedded in an on-going, risk-based ETP impact monitoring system.  | Expertise to assess fisheries-related impacts on ETP populations, and to develop both alternative management measures to combat these and a long-term risk-monitoring program.  | Seafish | JNCCIFCAs DefraCEFASIndustryMMO | Natural England | Overall timescale 4 years**Yr 1**: GIS-based risk assessment. Listing of potential ETPs interacting with UoAs, and then mapping of ETP distribution overlap with UoA potting effort. **Yr 2-Yr 3**. Based on the risk assessment, further data collection (1° or 2°) as required (possibly via FSP funding). Based on the ETP risk assessment and additional data, identification of interactions with ETPs and consequences for ETP populations and the development of possible management approaches for reducing ETP interactions and impacts**Yr 4**. Mainstreaming of ETP management approaches and introduce of the risk-monitoring system.  |
| 1. 3.2.1 Fishery-specific objectives

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. | Wider discussion and agreement of management needs and objectives with trans-boundary management authorities e.g. across UK inshore and offshore areas, and with French and Irish MAs.  | Facilitation of trans-boundary discussions and agreements  | Crab and lobster FIP Steering Group | Defra MMOIFCAsNWWAC | NWAG | Overall timescale 1 year**Each SG Meeting**: Review and where necessary, promote improvements to UK and non-UK consultation and joint management processes. |

**Table 3: Evaluation against Action Plan milestones**

| **Standard requirement** | **Actions** | **Timescale / milestones** | **Progress / outcome** | **Revised milestone** |
| --- | --- | --- | --- | --- |
| **1.2.1 Harvest strategy**  | Action #1: Develop formal harvest strategy that includes adaptive management measures where appropriate. | 6 months. Position paper produced, inc. identification of effort distribution by different fleets around the UoA, & identifying current harvest strategies, gaps and potential conflicts.  |  |  |
| Yr 1: Based on the Position Paper, proposals for a holistic harvest strategy.  |  |  |
| Yr 2: Public consultation and formal acceptance of agreed strategy. |  |  |
| **1.2.2 HCRs & tools** | Action #2: Development of formal harvest control rules | Yr 1: Develop proposals for harvest control rules, based on the strategies identified in Action #1 above.  |  |  |
| Yr 2: Proposals put out for consultation and finalised. |  |  |
| Yr 3: Improved harvest control regime embedded in management processes. |  |  |
| Yr 4. Review and finalisation of harvest control rules.  |  |  |
| **2.1.2 Primary & 2.2.2 Secondary species management strategy** | Action #3: Review alternative management measures to minimise mortality of all non-target 1° & 2° species | 6 months: Conduct review of alternative management measures for non-target species. |  |  |
| Yr 1: Mainstreaming of alternative measures into management.  |  |  |
| **2.2.3 Information (secondary species)** | Action #4: Information available on 2° species caught by the fisheries quantified & made available to managers.  | Yr 0: Risk assessment based upon SeaScope FR and other sources. |  |  |
| Yr 1: Based on the risk assessment, further data collection (1° or 2°) as required (possibly via FSP funding). |  |  |
| Yr 2. Formal report published.  |  |  |
| **2.3.1, 2.3.2, 2.3.3 ETP species outcome, management & information** | Action #5: Gather additional information on nature & scale of ETP interactions and impacts.  | Yr 0: GIS-based risk assessment. Listing of potential ETPs interacting with UoAs, and then mapping of ETP distribution overlap with UoA potting effort.  |  |  |
| Yr 1. Based on the risk assessment, further data collection (1° or 2°) as required (possibly via FSP funding). |  |  |
| Yr 2: Based on the ETP risk assessment and additional data, identification of interactions with ETPs and consequences for ETP populations and the development of possible management approaches for reducing ETP interactions and impacts |  |  |
| Yr 3. Mainstreaming of ETP management approaches and introduce of the risk-monitoring system. |  |  |
| **3.2.1 Fishery-specific objectives** | Action #6: Discussion & agreement of management needs & objectives by transboundary management authorities | Each SG Meeting: Review and where necessary, promote improvements to UK and non-UK consultation and joint management processes. |  |  |

Appendix : Pre-assessment scores

From: Acoura (2016). MSC Pre-Assessment for UK Western Channel and Celtic Sea edible crab fishery (pots). Project UK Fisheries Improvements. DRAFT REPORT. December 2016. Prepared for Project UK Fisheries Improvements by Crick Carleton, Nautilus Consultants.

| Principle | Component | PI  | Performance Indicator | Likely scoring level |
| --- | --- | --- | --- | --- |
| 1 | Outcome | 1.1.1 | Stock status | ≥80 |
| 1.1.2 | Stock rebuilding |  |
| Management | 1.2.1 | Harvest Strategy | <60 |
| 1.2.2 | Harvest control rules and tools | <60 |
| 1.2.3 | Information and monitoring | ≥80 |
| 1.2.4 | Assessment of stock status | ≥80 |
| 2 | Primary Species | 2.1.1 | Outcome | ≥80 |
| 2.1.2 | Management | 60-79 |
| 2.1.3 | Information | ≥80 |
| Secondary species | 2.2.1 | Outcome | ≥80 |
| 2.2.2 | Management | 60-79 |
| 2.2.3 | Information | 60-79 |
| ETP species | 2.3.1 | Outcome | 60-79 |
| 2.3.2 | Management | 60-79 |
| 2.3.3 | Information | 60-79 |
| Habitats | 2.4.1 | Outcome | ≥80 |
| 2.4.2 | Management | ≥80 |
| 2.4.3 | Information | ≥80 |
| Ecosystem | 2.5.1 | Outcome | ≥80 |
| 2.5.2 | Management | ≥80 |
| 2.5.3 | Information | ≥80 |
| 3 | Governance & policy | 3.1.1 | Legal and customary framework | ≥80 |
| 3.1.2 | Consultation, roles and responsibilities | ≥80 |
| 3.1.3 | Long term objectives | ≥80 |
| Fishery specific management system | 3.2.1 | Fishery specific objectives | 60-79 |
| 3.2.2 | Decision making processes | ≥80 |
| 3.2.3 | Compliance and enforcement | ≥80 |
| 3.2.4 | Management performance evaluation | ≥80 |