Project UK: Nephrops Action Plan

Version: 4.1

Date: 14 April 2022

Overview

Fishery name: UK North Sea, West of Scotland and Irish Sea Nephrops (*Nephrops norvegicus*)		**Start date:** 01 May 2019
Fishery location: **North Sea** Functional Units (FUs): 5 Botney Gut - Silver Pit, 6 Farn Deeps, 7 Fladen Ground, 8 Firth of Forth, 9 Moray Firth, 10 Noup, 34 Devil's Hole. **West of Scotland** FUs: 11 North Minch, 12 South Minch, 13 Firth of Clyde + Sound of Jura. **Irish Sea** FUs: 14 Irish Sea East, 15 Irish Sea West.	**Fishing methods:** Demersal trawl Creel **UoA vessels**: all UK vessels	**Annual reviews:** End Year 1: April 2020 Completed 14 April 2020 End Year 2: April 2021 Completed 21 May 2021 End Year 3: April 2022 Completed 14 April 2022 End Year 4: April 2023 End Year 5: April 2024
Project leaders: Project UK Fisheries Improvements – Stage 2		**Improvements recommended by:** POSEIDON AQUATIC RESOURCE MANAGEMENT

Overview of the Action Plan:

This Action Plan is undertaken as part of Project UK Round 2 and is applicable to UK nephrops demersal trawl and creel fisheries in the North Sea, West of Scotland and Irish Sea, across specified nephrops Functional Units (FUs). It is informed by an MSC pre-assessment (completed in May 2019), quarterly steering group meetings and end of Year 1 and Year 2 review processes. 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 below for each MSC Principle.

Principle 1 (target stock):

- **management at Functional Unit (FU) level**, that is responsive to the state of each FU stock,
- development of biomass **limit reference points** for all FUs,
- development of MSY proxy reference points for biomass and harvest rate for specific FUs,
- development of **harvest control rules** for each FU that utilises a technical measures toolbox.

Principle 2 (ecosystem):

- understanding the catch composition, including quantity and species of bait used in the creel UoA,
- interactions with ETP species & additional management requirements in an **ETP Strategy**.
- assessment of commonly encountered and VME habitats impacts,
- development of a **Habitat Management Plan,**
- introduction of vessel monitoring systems on all vessels to accurately / reliably record the footprint of the fishery.
- undertake an ecosystem Scale, Intensity, Consequence Analysis (SICA)

Principle 3 (management):

- focused on requirements for monitoring and control, specifically risks of non-compliance associated with the nephrops fishery in relation to the landing obligation.
- review of Principle 3 after UK-EU transition period.
- development of Fisheries Management Plan, linked to P1 Harvest Strategy.

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

Project UK: Nephrops Action Plan

Version: 4.1

Date: 14 April 2022

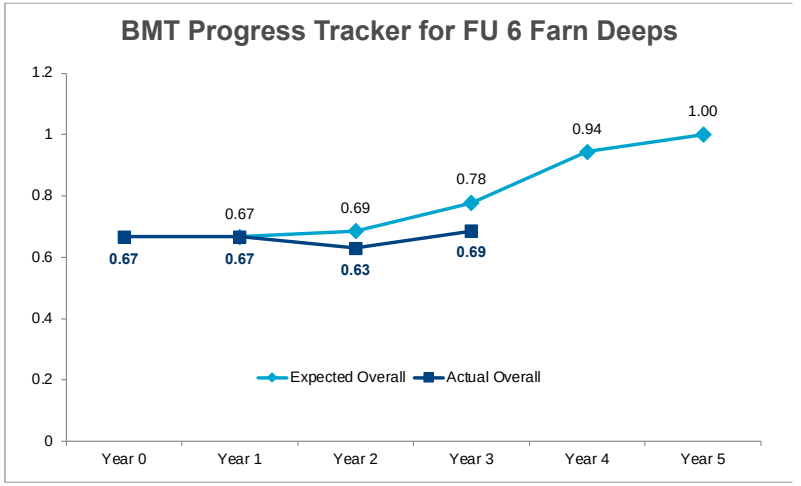
Annual Review (end of year 3)

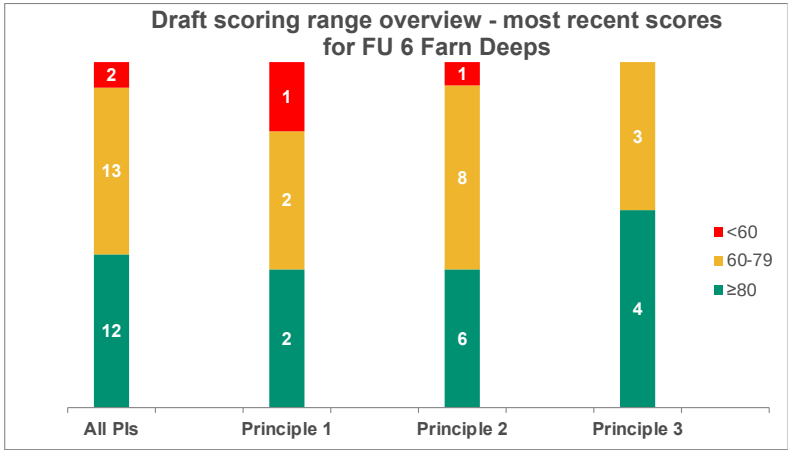
This section summarises the annual review process at the end of year 3 of a five year Fisheries Improvement Project (FIP) for the UK North Sea, West of Scotland and Irish Sea nephrops demersal trawl and creel fisheries. It reviews the progress made and the ongoing focus of actions.

Main Findings

The FIP for the UK nephrops fisheries has made progress in year 3; and there has been a number of scores increased across Principle 1, 2 and 3, summarised as follows:

- Principle 1: Information and monitoring (1.2.3) for FU 10 (Noup) and FU 34 (Devil's Hole) increased from **60-79** to **≥ 80** due to recent UWTV surveys (in 2019), updated ICES stock assessments for 2021, and confirmed intention to undertake repeat UWTV surveys in 2022.
- Principle 2: Primary species outcome status (2.1.1) and management (2.1.2) for FU 11 (North Minch), FU 12 (South Minch) and FU 13 (Clyde & Jura) increased from **<60** to **60-79** due to the improved status of whiting stock in the West of Scotland.
- Principle 2: Secondary species management (2.2.2) for all UoAs improved from **60-79** to **≥ 80** due to documentation of the management in place for secondary species.
- Principle 2: Habitat outcome status (2.4.1) for all trawl UoAs increased from **<60** to **60-79** due to harmonisation with both the Joint Demersal Fishery (which recently gained certification), and the lemon sole and plaice FIP.
- Principle 3: Legal and customary framework (3.1.1) and consultation roles & responsibilities (3.1.2) improved from **60-79** to **≥ 80** due to clarity on the Fisheries Act, its objectives and how they will be delivered, together with the Joint Fisheries Statement and co-operative roles defined in the Trade & Cooperation Agreement.





Other significant progress includes the establishment of Nephrops Management Groups for the North Sea, West of Scotland and Irish Sea, which have all begun the process of discussing potential approaches to developing harvest control rules from a toolbox of technical measures. Work also continues to progress in documenting current Functional Unit (FU) specific management measures within the Fisheries Management Plan (FMP).

Harmonisation with the Joint Demersal Fishery has led to an increase in the habitats outcome score, although the scores remain unaligned with the FIP being more precautionary (JDF at **≥ 80** and nephrops FIP at **60-79**). A habitat post-doctoral study began in February 2022 to inform this assessment of habitat outcome status, with results expected in October 2022. This post-doctoral habitat work will utilise Relative Benthic Status to determine the impact of the trawl and creel UoAs on commonly encountered habitats and VMEs. It is expected to provide further confidence in the **60-79** assessment and inform habitat management requirements.

Project UK: Nephrops Action Plan

Version: 4.1

Date: 14 April 2022

A summary of the benchmarking tool for all UoAs is shown below, indicating the actual year 3 scores versus expected year 3 scores.

Principle	Component	Performance Indicator	FU 5 North Sea		FU 6 North Sea		FUs 7, 8, 9 North Sea		FU 10 North Sea		FU 34 North Sea		FUs 11-13 WoS		FUs 14-15 Irish Sea		Creel	
			Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3	Actual Year 3	Expected Year 3
1	Outcome	1.1.1 Stock status	≥80	≥80	60-79	≥80	≥80	≥80	≥80	≥80	60-79	≥80	≥80	≥80	≥80	≥80	60-79	≥80
		1.1.2 Stock rebuilding	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
	Management	1.2.1 Harvest Strategy	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79
		1.2.2 Harvest control rules and tools	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80
		1.2.3 Information and monitoring	60-79	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
		1.2.4 Assessment of stock status	60-79	60-79	≥80	≥80	≥80	≥80	60-79	60-79	60-79	60-79	≥80	≥80	≥80	≥80	60-79	60-79
2	Primary species	2.1.1 Outcome	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	<60	60-79	≥80	≥80
		2.1.2 Management	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	60-79	60-79	60-79	60-79	≥80	≥80
		2.1.3 Information	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
	Secondary species	2.2.1 Outcome	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	60-79
		2.2.2 Management	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79
		2.2.3 Information	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
	ETP species	2.3.1 Outcome	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	<60	60-79	60-79	60-79
		2.3.2 Management	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79
		2.3.3 Information	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79
	Habitats	2.4.1 Outcome	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	≥80	≥80
		2.4.2 Management	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79
		2.4.3 Information	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79
	Ecosystem	2.5.1 Outcome	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	≥80	≥80
		2.5.2 Management	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	60-79	≥80	≥80
		2.5.3 Information	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
3	Governance and Policy	3.1.1 Legal and customary framework	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
		3.1.2 Consultation, roles and	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
		3.1.3 Long term objectives	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80
	Fishery specific management system	3.2.1 Fishery specific objectives	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80
		3.2.2 Decision making processes	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80
		3.2.3 Compliance and enforcement	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80	60-79	≥80
		3.2.4 Management performance evaluation	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80	≥80

Recommended actions in year 4

Principle 1 will focus on developing a nephrops harvest strategy that is responsive to the status of stocks, and defining harvest control rules applicable to each FU. This will be delivered through the Nephrops Management Groups for the North Sea, West of Scotland and Irish Sea.

Principle 2 will undertake further harmonisation with the Joint Demersal Fishery to understand the discrepancy within the ETP assessment (based on which species are included on the ETP list and related to pmf invertebrates); the post-doctoral habitat work will improve the level of information and also greatly inform the requirements for habitat management. Information improvements are also anticipated on the spatial footprint of the fishery based on iVMS being implemented in 2022, although the extent of this data availability in amalgamated form is unknown.

Principle 3 will continue to address Fisheries-Specific Management, through development of a FIP level Fisheries Management Plan (FMP). Drafting is underway with individual Steering Group members responsible for relevant sections of the FMP.

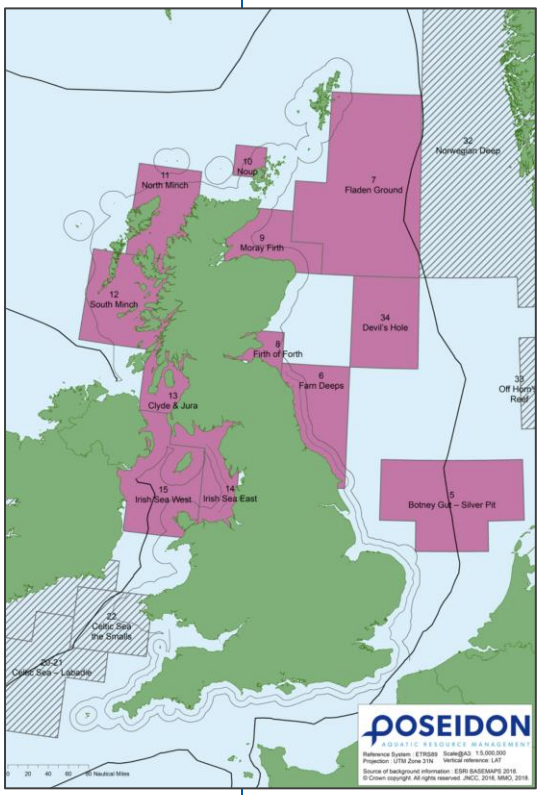
Project UK: Nephrops Action Plan

Version: 4.1

Date: 14 April 2022

Table 1: Action Plan

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone

Action 1: Stock status
 	
Overview: [FU 6 & FU 34]
Reduce harvest rates in FUs 6 and 34 to levels below the Fmsy proxy to ensure that stock biomass is rebuilt to a level consistent with MSY.
 	
Performance indicator
 	
1.1.1Stock status **60-79**
 	
Requirement at SG80:
 	
(a) It is highly likely that the stock is above the PRI [FU34]
(b) The stock is at or fluctuating around a level consistent with MSY. [FU 6 & FU 34]
	Action lead: Steering Group (SG)
	
	Resources: Harvest Strategy Development Project
		1a. Yr. 2-5 – Ensure that harvest rates in FUs 6 and 34 are reduced to below the Fmsy proxy e.g. by ensuring landings are no more than the catches advised by ICES for these two UoAs.
		
		 
			Behind target for FU6 and on target for FU 34
			A summary is provided of nephrops stock status as of April 2021 based on information from the latest ICES advice. Note that this action milestone relates to FUs 6 and 34 that score between 60-79, while all other stocks are ≥80. The harvest rate for FU6 was double the Fmsy stipulated in the North Sea MAP.
			
			Transferable learning from other MSC nephrops fishery full assessment reports are summarised as follows:
			
			Withdrawn: Scottish Fisheries Sustainable Accreditation Group's (SFSAG) North Sea nephrops trawl fishery (PCDR client review, MEP, 2012):
			
			• Five FUs were assessed (6 Farn Deeps, 7: Fladen Ground, 8: Firth of Forth, 9: Moray Firth, 10 Noup FUs);
			• For FUs 6, 8, 9 & 10, the lack of an adaptive management structure at FU level caused PI to fail.
			• For FU 7, it passed P1 with 1 condition:
			  ○ >60% of the North Sea TAC is taken from the Fladen Ground, so that the TAC is more responsive to the status of this stock than to the others;
			  ○ The stock status is good;
			  ○ It is difficult to transfer effort to the Fladen Ground (because it is further offshore than the other FUs)
			  ○ Condition: management system more responsive to stock status
			
			Certified: Joint Demersal North Sea fishery:
			
			• Three FUs were assessed: 7 Fladen Ground, 32 Norway Deep and 3a Kattegat and Skagerrak.
			• FU32 failed with an average score of less than SG80 for Principle 1,
			• Area 3a had one condition in Principle 1
			• FU7 passed MSC assessment with no conditions as it was understood to have a coherent harvest strategy: harvest rates are managed through the North Sea total allowable catch (TAC), it has minimum conservation reference sizes (MCRS), technical measures for TR2 gear. TAC is adjusted annually and MSY Btrigger is used as the limit reference point. The stock is in good condition and only a massive shift in effort, +70% of TAC, could cause over exploitation.
			
			A summary of the stock status assessment for all FUs is provided below. There are no score changes compared to year 2 annual review.
			
			Overall, fishing mortality has reduced across most functional units, due to a reduction in fishing activity driven by the pandemic, associated processing capacity and lower market prices.
				Revised to Yr 2-5 to ensure continual monitoring throughout FIP.

Project UK: Nephrops Action Plan

Version: 4.1

Date: 14 April 2022

Functional Unit	F/Fmsy (%) [HR/HRMSY (%)]	SSB/MSYBtrig (%) [abundance/Blim]	ICES Division	Reference points defined		Last survey	ICES advice	Multi-Annual Plan	Stock status		ICES landings		Overfishing?
				MSY Btrigger	F MSY (HR)				1.1.1	Reason	Landings (Tonnes)	% of these FU's	
5 Botney Gut - Silver Pit	88%		4	✗	✗	2012	06-Nov-20	NS-MAP	≥80	HR is currently below 7.5%. Note that abundance levels are not known and MSYBtrig is not defined	1,172	5%	N
6 Fam Deeps	112%	114%	4	✓	✓	2021	29-Oct-21	NS-MAP	60-79	Significant reduction in catches from 2019 to 2020 (reduced by 44%) Stock size currently above MSYB trigger, but recently below (2009-2010 and 2012-2016). F above Fmsy since 2001 (except 2008), currently 12% above Fmsy. Long term trend of F being above Fmsy.	1,912	7%	Y
7 Fladen Ground	49%	229%	4	✓	✓	2021	29-Oct-21	NS-MAP	≥80	Well above MSY Btrigger (but below in 2015). F is well below Fmsy. Highly likely to be above PRI.	5,543	21%	N
8 Firth of Forth	37%	287%	4	✓	✓	2021	29-Oct-21	NS-MAP	≥80	Well above MSY Btrigger (across whole time series), also above 2*MSYBtrig. F varying and below FMSY	1,787	7%	N
9 Moray Firth	63%	251%	4	✓	✓	2021	29-Oct-21	NS-MAP	≥80	Well above MSY Btrigger (across whole time series), also above 2*MSYBtrig F fluctuating, but halved from 2019 to 2020 and is currently below FMSY	963	4%	N
10 Noup	6%		4	✗	✗	2019	06-Nov-20	NS-MAP	≥80	HR is currently below 1%	21	0.08%	N
34 Devil's Hole	65%		4	✗	✗	2021	06-Nov-20	NS-MAP	60-79	Catches in 2016 & 2017 well above ICES advice. Catches in 2019 over double ICES advice. Although HR is below 7.5%	1,186	5%	N
11 North Minch	29%	258%	6a	✓	✓	2021	29-Oct-21	WW-MAP	≥80	Well above MSY Btrigger (across whole time series), well above MSYBtrigger*2. F below FMSY since 2013 and at its lowest level in 2020.	1,331	5%	N
12 South Minch	26%	125%	6a	✓	✓	2021	29-Oct-21	WW-MAP	≥80	Fluctuating above MSY Btrigger (across whole time series). Above MSYBtrigger in 2021 assessment, although below 2*MSYBtrigger, so may not be fluctuating at a level consisten with MSY. Keep a watching brief on next assessment to check abundance trend (which does regularly have troughs every 6-7 years). F below FMSY since 2013 and at lowest in time series (since 1995).	1,976	8%	N
13 Firth of Clyde + Sound of Jura [Firth of Clyde]	62%	244%	6a	✓	✓	2021	29-Oct-21	WW-MAP	≥80	Abundance well above MSY Btrigger for both Clyde & Jura F fluctuated around FMSY; above in 2018, and below from 2019 to 2020.	3,636	14%	N
13 Firth of Clyde + Sound of Jura [Sound of Jura]	78%	194%	6a	✓	✓	2021	29-Oct-21	WW-MAP	≥80				N
14 Irish Sea East	24%	112%	7a	✓	✓	2021	29-Oct-21	WW-MAP	≥80	Abundance fluctuating above MSY Btrigger since 2010, but not 2*MSYBtrigger F well below FMSY	232	1%	N
15 Irish Sea West	58%	158%	7a	✓	✓	2021	29-Oct-21	WW-MAP	≥80	Well above MSY Btrigger (across whole time series), but not 2*MSYBtrigger F fluctuating around and below FMSY since 2016	6,115	24%	N

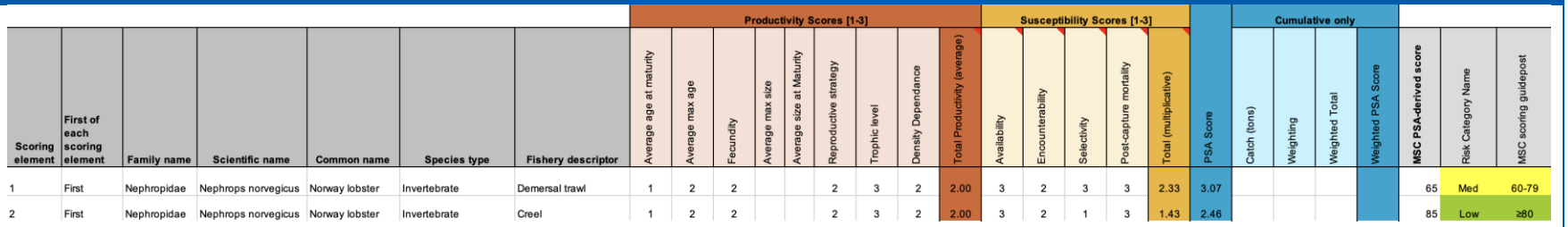
Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
	Action lead: Steering Group (SG)	**1b.** Yr2 - Maintain harvest ratio below 7.5% in FU34 and below 8.12% in FU6.	**Behind target for FU6 and on target for FU 34** ICES stock assessment and advice published in Nov 2020 show the following harvest ratios (HR) for FU34 and FU6: • FU 34 HR_{2019} = 4.9% • FU 6 HR_{2019} = 16.1% This milestone has been met for FU34, but has not been met for FU 6. There are no score changes for either FU.	
		1c. Yr3 - Continue to maintain harvest ratio below 7.5% in FU34 and below 8.12% in FU6, and demonstrate that stock is at or fluctuating around a level consistent with MSY in FU34 and that stock abundance remains above $MSYB_{trigger}$ in FU6.	ICES stock assessment and advice published in Nov 2020 show the following harvest ratios (HR) for FU34 and FU6: • FU 34 HR_{2019} = 4.9% • FU 6 HR_{2020} = 9.1% The harvest rate (HR) in FU6 has reduced significantly from 16.1% to 9.1%, although remains above the EU MAP FMSY of 8.12%. The stock abundance in FU6 (982 million individuals) remains above the $MSYB_{trigger}$ (858 million). HR in FU34 remains below 7.5%, although the catches in 2019 were over double the ICES advice for this functional unit. This milestone has been met for FU34, but has not been met for FU 6. There are no score changes for either FU.	
		1d. Consideration of nephrops landed from areas outside Functional Units in the North Sea, West of Scotland and Irish Sea.	New Milestone ICES provide advice for nephrops outside FUs, indicating that just under 900 tonnes of nephrops landed outside FUs in the North Sea (724 tonnes) and West of Scotland (173 tonnes), representing 3% of total landings of the FU's included in this FIP. This equates to 6% of landings from North Sea and 2% of landings from WoS. ICES advice is not provided for landings of nephrops outside FUs in the Irish Sea. Stock status reference points are not available for nephrops outside FU's and therefore a RBF approach is expected to be required. The results of a Productivity Susceptibility Analysis (PSA) are presented below: ○ Demersal trawl scores 60-79: this is largely based on a score of '2' for encounterability, which is based on a medium overlap with fishing gear due to nephrops inhabiting burrowed mud and therefore not always accessible to the fishing gear. ○ Creel scores ≥80: this is due to an encounterability score of '2' and selectivity of '1'	

Project UK: Nephrops Action Plan

Version: 4.1

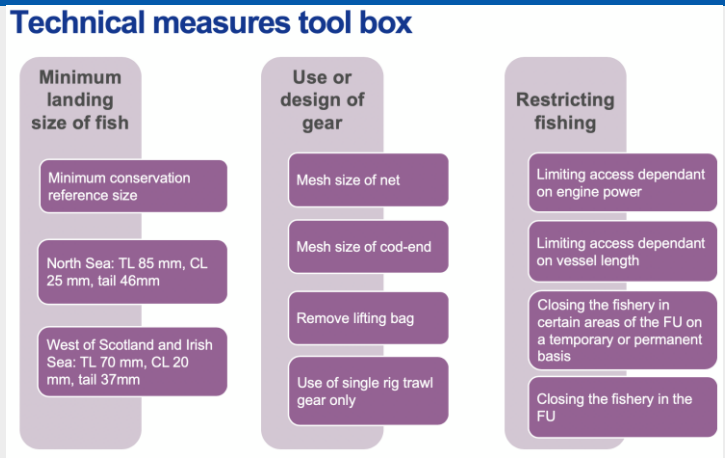
Date: 14 April 2022

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone



							Productivity Scores [1-3]									Susceptibility Scores [1-3]						Cumulative only						
Scoring element	First of each scoring element	Family name	Scientific name	Common name	Species type	Fishery descriptor	Average age at maturity	Average max age	Fecundity	Average max size	Average size at Maturity	Reproductive strategy	Trophic level	Density Dependance	Total Productivity (average)	Availability	Encounterability	Selectivity	Post-capture mortality	Total (multiplicative)	PSA Score	Catch (tons)	Weighting	Weighted Total	Weighted PSA Score	MSC PSA-derived score	Risk Category Name	MSC scoring guidepost
1	First	Nephropidae	Nephrops norvegicus	Norway lobster	Invertebrate	Demersal trawl	1	2	2			2	3	2	2.00	3	2	3	3	2.33	3.07					65	Med	60-79
2	First	Nephropidae	Nephrops norvegicus	Norway lobster	Invertebrate	Creel	1	2	2			2	3	2	2.00	3	2	1	3	1.43	2.46					85	Low	≥80

Action 2: Harvest Strategy **Overview:** [all FUs] The harvest strategy is at a stock level and can be responsive to changes in the state of that stock. **Performance indicator** 1.2.1 Harvest strategy **<60** Requirement at SG80: (a) **SG60:** The harvest strategy is expected to achieve stock management objectives	Action lead: SWFPA Resources: Harvest Strategy Development Project	**2a.** Yr1 - Assess the options and scope of the current harvest strategy, in accordance with the North Sea and North West Waters Multi-Annual Plans (MAPs). Assess its ability to continue to deliver management objectives that achieve a stock at or fluctuating around MSY. Investigate rebuilding plans and strategy.	**Complete** The Harvest Strategy Development (HSD) project highlighted three key issues identified at pre-assessment: B limit reference points need to be defined; annual TACs are set at ICES division level, not by FU; and lack of evidence that requirements on discarding have been implemented. The report reiterated that the options of TAC by FU and Days at Sea have been ruled out based on the understanding that these are unworkable for industry. Overall the report recommended that technical measures are developed; these can offer flexibility to fishermen and appear to be the only way to move forward at this time; however they can be complex and have indirect consequences as well as risk decreasing fishing efficiency. Examples of technical measures include minimum landing sizes, regulation of engine power, gear design, and spatial and/or temporal fishing restrictions; and the HSD project includes a 'toolbox' of suggested measures.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
SG 80: 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. (b) The harvest strategy may not be fully tested but there is evidence that it is achieving its objectives. (f) Regular review of alternative measures of minimising mortality of unwanted catch.			 It should be for local management groups to decide which measure(s) are most appropriate for their FUs. The HSD project outlines options for improved data to better inform management decision, specifically CPUE, taking a live-time approach i.e. when management groups are meeting, a CPUE report could be run for each FU to give up-to-date details. This would better support management via technical measures (compared to stock abundance data which supports management via TAC). The title of the HSD report had been updated to clarify it is a 'non-TAC FU management plan', and the table on p10 has been updated to include 'ticks and crosses' to illustrate the recommendations clearly. Moving forward, management groups need to be established to discuss and agree technical measures (that would be implemented if trigger points are reached). The Steering Group agreed that a regional approach to management is required due to the large area covered by the FIP and the differing challenges faced by each Functional Unit. This Management Focus Group will support the development of regional management. **Actions:** • Secretariat to consult with Irish FIP to understand their FU management plans for the overlapping region.	
	Action lead: MSS	**2b.** Yr 1 - Investigate whether there is any discarding of nephrops above the MCRS.	**Complete**	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
	Partners: Cefas, AFBI		MSS provided Nephrops discard rates (by weight) above and below MCRS in 2018 for North Sea (FUs 7, 8, 9) and WoS (FUs 11, 12, 13). Note: higher than average discard rate of neprhops >MCRS in FU 8 (Firth of Forth)  Nephrops discard rates (by weight) above and below MCRS in 2018 FU / <MCRS (%) / >MCRS (%) / Total (%) FU7 / 0.1 / 1.4 / 1.5 FU8 / 2.1 / 6.9 / 9.0 FU9 / 0.1 / 0.2 / 0.3 FU11 / 0.5 / 2.4 / 2.9 FU12 / <0.1 / 2.1 / 2.1 FU13 / 0.1 / 1.4 / 1.5 The latest ICES report contains details on MCRS for the Irish Sea. The 2019 ICES assessment showed landings profiles for Irish Sea Functional Units and indicated that there are discards of Nephrops above MCRS. The next report produced by the ICES Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK) will provide a size range of discards for FU6. The fishery in FU5 is self-sampled by Dutch industry, who have their own minimum landing size with estimates of discarding around 60-70%.	
	Action lead: TBC	**2c.** Yr 2-3 – Establish Management Working Groups for UK regions each covering one or more FU.	**On target** Moving forward, management groups need to be established to discuss and agree technical measures (that would be implemented if trigger points are reached). The Steering Group agreed that a regional approach to management is required due to the large area covered by the FIP and the differing challenges faced by each Functional Unit. This Management Focus Group will support the development of regional management. The group discussed possible approaches to regional management, including: • the spatial boundaries of the region; • the relevant stakeholders; • who should lead the work in each region; • challenges that may come up; and • realistic timelines. The group agree that it is important to involve stakeholders outside the steering group within the management groups to ensure input to the development of and buy in to management options. This process should be transparent to demonstrate where some stakeholders do not wish to participate, but remain updated of progress.	Milestone added in v1.8 Timescale updated v3.1 to Yr2-3

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			The SG agree that following an 'ICES area' approach for regionalisation of management groups is appropriate and practical. It is suggested that the first step be to hold a centralised workshop that assembles all regional working groups together and show cases potential management measures and how these have been applied globally. This means each group will be starting with the same information. The establishment of Regional Management Groups has commenced with a list of stakeholders drawn up for each group. This list is being discussed / agreed with the Steering Group. 2021 update: Regional Management Groups have been held for North Sea, Irish Sea and West of Scotland. Dissemination of information was discussed, and it was agreed that: • Producer Organisation meetings could be attended to communicate to the fishermen in attendance • IFG meetings would provide a good platform for engagement, as would meeting the Communities Inshore Fisheries Alliance (CIFA) executive committee • Steering Group members can disseminate information to their members. • It would be helpful for Seafish to be invited to join the Management Groups. **Actions:** • JP to share a summary of proposed work with the focus group. • DW to continue to work with Seafish on planning for a Nephrops management event, with support from the Secretariat to consider how to fund documentation of current management measures in each functional unit, and how to fund the regional workshops. • Secretariat to invite Seafish to the regional management group meetings. • Secretariat to follow up with SM, EW and DW around presenting at IFG and other fishing sector group meetings. • Steering Group members to disseminate information on regional management groups to their own members. • SM to check whether Secretariat can present on Project UK at the next West Coast IFG meeting.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
	Action lead: 2c 2d Whitby Seafoods Action lead 2d: Seafish	**2d.** Yr2-4 – Develop and formalise harvest strategy. Present rebuilding plans and demonstrate that it is highly unlikely that the Fmsy for an individual FU will be exceeded.	**On target** The approach of the Project UK Round 1 FIPs is noted, specifically the development of Fishery Management Plans and presence of Defra on the SG to ensure government is aware of discussions and ensure alignment with national fisheries strategies. Noted that other industry groups, such as the Scallop Industry Consultation Group (SICG) have Defra involved. The aim is to develop strong co-management, with industry indicating the management options they would like, and government signing it off or amending where appropriate. The SG agree that an advisory group concept would provide direction to the group and agree to the importance of having fisheries administrations involved to ensure both parties are fully updated. It is noted that Mike Park (MP) chaired the North Sea Advisory Council Nephrops group that developed the Nephrops Long Term Management Plan over seven years and set out what Nephrops management could look like at a Functional Unit level. Their approach was to ask fishermen that if they had to restrict fishing in that area and which measures they would implement. MP believed that technical measures were agreed for each area, but it would ultimately be up to the fleet to implement the measures. It is noted that the North Sea and Western Waters MAPs state that when nephrops stock status falls below specified levels, management measures must be implemented. However, the MAPs do not specify the which management measures will be implemented, and the MSC Standard requires management actions and reference points to be specifically agreed and documented. The SG agree that engagement in this FIP from Defra, Daera, and Marine Scotland Policy officials is crucial to the success of adopting additional management measures in the UK Nephrops fishery; increased legislative involvement will ensure that plans are implementable and enforceable. Seafish's involvement with the Shellfish Industry Advisory Group (SIAG) is highlighted as a good opportunity for alignment with this action e.g. to facilitate hosting an event. Seafish have stipulated that if the FIP requires Seafish's input, then a proposal should be submitted. **Actions:** • DW to lead on documenting current management measures in each Functional Unit	Updated timeline in v1.8
		2d. Yr 2 - Consider options for alternative measures to minimise mortality of unwanted catch.	**Complete** Seafish have undertaken a thorough review of alternative measures, including both an excel database of studies and comprehensive written report. This process included significant input from the steering group on recent /current	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			trials and studies, as well as technical measures & national legislation (for example, regulations on square mesh panels). This process aligned with the work undertaken by the lemon sole and plaice FIP.	
		2e. Yr3 – Continue to monitor effectiveness of harvest strategy. Agree and list rebuilding strategies.	This action has not yet commenced.	
		2f. Yr5 - Carry out new review of alternative measures to minimise mortality of unwanted catch.	This action has not yet commenced.	Timeline changed in v3.1
Action 3: HCR **Overview:** [all FUs] Develop limit reference point (Blim) and define explicitly what action should be taken if stock abundance drops significantly below MSYBtrigger and towards Blim, and if stock abundance drops below Blim. Ensure that catches do not exceed the levels advised by ICES. **Performance indicator** 1.2.2 Harvest control rules and tools **60-79** Requirement at SG80: (a) Well-defined HCRs are in place, (wrt PRI and MSY). (b) HCRs are likely to be robust to the main uncertainties (c) available evidence indicates that tools in use are effective.	Action lead: Cefas Action partners: MSS Resources: Harvest Strategy Development Project	**3a.** Yr1-3 – Consider options for defining Blim and how exploitation rates should vary dependent on the estimate of stock status in relation to stock abundance reference points. Ensure that catches do not exceed the levels advised by ICES.	**On target** The potential of using a buffer score ('Bbuff') to build in a precautionary approach before Blim is reached was discussed. This would help avoid issues where a data delay could have negative impacts on the stock. The ICES workshop on methodologies for nephrops reference points (WKNephrops) was held in Nov 2019 to evaluate reference point estimation methods for stocks with UWTV surveys. The workshop had the following objectives (ICES, 2019[1]): a) Review the methodology and performance of the current approaches to estimating reference points for Category 1 Nephrops stocks. b) Based on a) develop a standard method and apply this method to estimate reference points (MSY, ranges, precautionary and limit) for fishing pressure and stock size for all Nephrops stocks which have sufficient data. c) Evaluate the utility of other modelling frameworks to assess and provide reference points for Nephrops stocks (e.g. length based models, VPA type models and production models). **WKNEP ICES methodologies for nephrops reference points (ICES, 2020)** The workshop found that "there is still much work to do in relation to the assessment and derivation of reference points on Nephrops stocks. The move toward dynamic length-based models integrating the UWTV surveys is desirable and may help address the reference point issue." In relation to discard data and use of this data within modelling, it was deduced that for stocks where FMAX is used as the FMSY proxy and which have a high discard percentage, FMSY may need to be re-estimated using the best available estimate of discard survival. Overall, the workshop concluded that further work is need before new reference points can be proposed and agreed.	Timeline changed in v3.1

[1] https://www.ices.dk/community/groups/Pages/WKNephrops2019.aspx

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			Biomass reference points It was agreed at the SG meeting on 19 October 2020, that based on transferrable learnings from the Joint Demersal assessment, it is appropriate to consider $MSYB_{trigger}$ as a limit reference point, as it represents the lowest abundance measured in the timeseries of UWTV surveys undertaken for (most) FU stocks. Therefore it is considered appropriate that $MSYB_{trigger}$ is a proxy for B_{lim}. The action therefore changes focus to defining B_{MSY} or an appropriate proxy for B_{MSY}. Extract from MSC interpretation log on B_{MSY} and ICES assessed stocks[2]: *MSC recommends that to achieve an assumed status of B_{MSY}, F should have been at or below F_{MSY} for at least 1 Generation Time (GT) from a starting point close to B_{pa} or $B_{trigger}$, and 2 generation times from a starting point close to B_{lim} (Carruthers and Agnew 2016[3]* *An 80 score may also be met where stock size is very substantially higher than B_{pa}, for instance greater than 2 x B_{pa} ($B_{trigger}$) (Froese et al, 2014[4]), irrespective of the above F proxies.* It is noted that an ICES reference point workshop (though not necessarily Nephrops) will be in December 21/ January 22. It is agreed that Cefas, AFBI and Marine Scotland Science would defer to a more in-depth ICES led process in defining the rule for an MSY biomass reference point. Some concern remains in relation to functional unit management and potential impacts if one FU were to be closed due to reference points, while other FUs remain open. Discussion and wider outreach to Scottish fishing organisations is considered a good approach to discuss potential approaches. **Documentation: ICES. 2020. Workshop on Methodologies for Nephrops Reference Points (WKNephrops; outputs from 2019 meeting).** **Actions:** • DW to speak to John Anderson (Scottish Fishermen's Organisation) and the Scottish Producer Organisations to understand their concerns about Functional Unit management.	

2 https://mscportal.force.com/interpret/s/article/Scoring-stock-status-against-Bmsy-for-ICES-stocks-PI-1-1-1-1527262010506
3 Carruthers, T. & D. J. Agnew, 2016. Using simulation to determine standard requirements for recovery rates of fish stocks. Marine Policy 73, pp 146–153
4 Froese, R., Coro, G., Kleisner, K. and Demirel, N. (2014), Revisiting safe biological limits in fisheries. Fish and Fisheries. http://onlinelibrary.wiley.com/doi/10.1111/faf.12102/abstract

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			• Secretariat to coordinate a request to ICES to prioritise Nephrops reference points. • EW to share the report of Functional Unit management that triggered her concerns, with the Secretariat for clarification.	
	Action lead: TBC	**3b.** Yr2-4 – Consult on options for defining Blim and for formalising more explicit HCRs for when stock abundance drops below both MSYBtrigger and Blim. Ensure that catches do not exceed the levels advised by ICES.	This action has not yet commenced. See 1a	Timeline changed to Yr2-4 in v3.1
		3c. Yr3-4 – Define Blim for stocks and implement more explicit HCRs for when stock abundance drops below both MSYBtrigger and Blim. Ensure that catches do not exceed the levels advised by ICES.	This action has not yet commenced.	Timeline changed to Yr3-4 in v3.1
Action 4: Information **Overview:** [FU 5, 10 & 34] Development of regular estimate of stock abundance through TV burrow count surveys in FUs 5, 10 and 34. **Performance indicator** 1.2.3 Information and monitoring FU 5: **60-79** FU 10 & 34: **≥ 80** Requirement at SG80: (b) Stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule.	Action lead: MSS Partners: Cefas	**4a.** Yr1 – Determine timescale for implementing regular TV surveys in all FUs.	**Complete** All Scottish FUs are planned to be surveyed on an annual basis. Data-limited FUs (10 & 34) are dropped if there are time-constrains or any issues during the surveys (for example weather, problems with the ship or equipment, any staff issues). In 2019 MSS successfully surveyed all FUs (including FU 10 and 34). It is understood that FU10 and 34 are surveyed as often as possible but Covid-19 was impacting AFBI's ability to do so this year. The use of catch per unit effort (CPUE) is discussed. Paul Medley (P1 adviser) recommends use of CPUE as an additional means to monitor FUs. This could be more important for FUs with irregular UWTV surveys. Cefas cautioned against using a CPUE as a proxy indicator for Nephrops as catch rate data is hugely variable and depends on factors such as sunlight, oxygen, absence/presence of predators and spawning cycles. Using CPUE as a proxy under such circumstances is likely to produce inaccurate estimates of Nephrops abundance, which could have significant consequences for managing the stocks. It is noted that landings outside designated Functional Units have increased recently: • Landings outside FUs in North Sea were 724 tonnes + 567 tonnes discards, ICES advice was 376 tonnes. • Landings outside FUs in West of Scotland were 173 tonnes, ICES advice was 261 tonnes.	
		4b. Yr2 – As a priority, instigate regular TV surveys in FU5 (last survey in 2012).	**Not complete and no further action possible** Surveying FU5 is undertaken by Cefas. FU5 was not surveyed in 2019 and was last surveyed in 2012. It is unknown why this FU appears of lower	

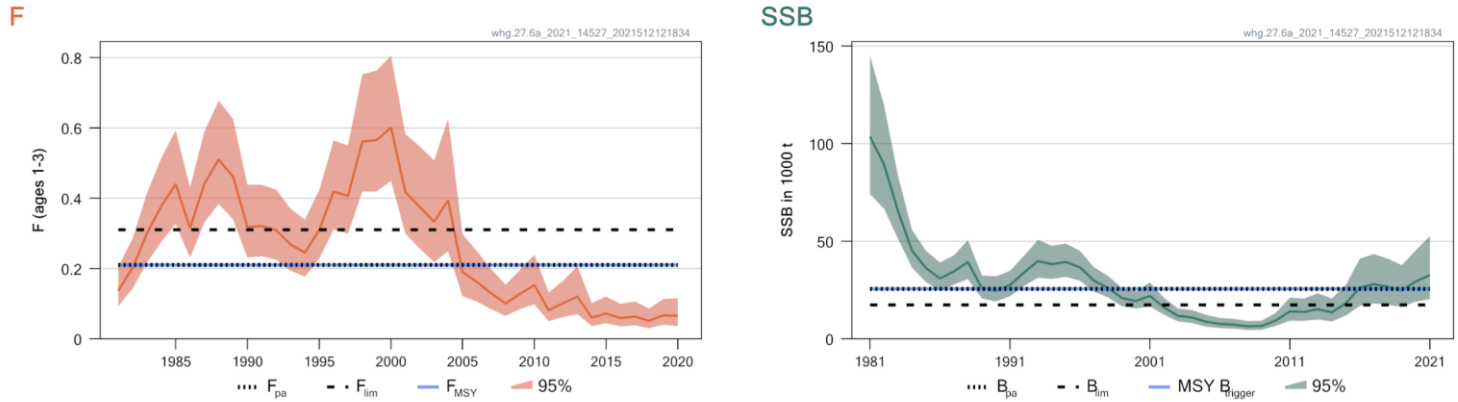
Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			importance for regular survey, it could be based on catch levels or that it is shared between UK and other EEZ. Cefas explained that there is no funding available to survey FU5 on a regular basis and this is unlikely to change. This action is outside FIP control and cannot be taken further based on funding requirements. The score for FU5 remains at 60-79.	
		4c. Yr3 - Instigate regular TV surveys in FU10 (last survey in 2014) and in FU34 (last survey in 2017).	**Complete.** For FU's 5 (Botney Gut), 10 (Noup) and 34 (Devil's Hole) 1.2.3 scoring issue b was not met in the pre-assessment [Stock abundance and UoA removals are regularly monitored at a level of accuracy and coverage consistent with the harvest control rule, and one or more indicators are available and monitored with sufficient frequency to support the harvest control rule.] This was due to a lack of annual UWTV survey to monitor abundance. FU's 10 and 34 have now recently been surveyed (in 2019), with an updated ICES stock assessment for 2021. Marine Scotland Science confirm that it is their intention to survey FU 10 and 34 this year (although these FU's are the lowest priority due to catch rates and may be missed if surveys are delayed due to weather etc). It is considered that: ○ With these recent surveys and monitoring of abundance, it is appropriate that FU's 10 and 34 can meet SG80 for 1.2.3. ○ FU 5 has not been surveyed since 2012, with no plans or budget for future surveys. So this remains at SG60. A watching brief should be maintained on the frequency of UWTV surveys on these FU's.	Score changed for FU 10 & 34 in v4.1
Action 5: Assessment **Overview:** [FU 5, 10 & 34] Development of stock abundance and harvest ratio reference points for FUs 5, 10 and 34. **Performance indicator** 1.2.4 Assessment of stock status **60-79**	Action lead: MSS and Cefas	**5a**. Yr1-3 – Review data requirements for developing harvest ratio reference points for FUs 5, 10 and 34. Use 7.5% harvest ratio as reference point until better estimate is available.	**On target** The ICES WKNephrops held a workshop in Nov 2019, which included the following objective: • For Nephrops stocks which are more data-limited propose a consistent methodology to determine stock status and provide catch advice taking into account available data and knowledge from other areas. The findings of ICES WKNephrops workshop are provided in milestone 3a. Transferrable learning from SFSAG North Sea Neprhops trawl fishery is provided in milestone 1a.	Timeline updated in V3.1

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
Requirement at SG80: (b) The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.			**Actions:** • Secretariat to follow up with Cefas and MS for access to CPUE data.	
		5b. Yr2-4 – Evaluate whether there are sufficient data to develop harvest ratio reference points.	This action has not yet commenced.	Timeline updated in V3.1
		5c. Yr3-4 – If sufficient data are available, develop harvest ratio reference point for FUs 5, 10 and 34.	This action has not yet commenced.	Timeline updated in V3.1
		5d. Yr5 – Determine stock abundance reference point for FUs 5, 10 and 34 based upon time series of TV abundance estimates.	This action has not yet commenced.	Timeline updated in V3.1
Action 6: Primary spp **Overview:** Information on the nature and scale of effect of this fishery on primary species stocks needs to be assessed. Based on this, appropriate management measures need to be developed. **Performance indicator:** Trawl **2.1.1:** North Sea FUs (5-10, 34): **60-79** WoS FUs (11-13): **60-79** [moved from <60 in v3.2] Irish Sea FUs (14-15): **<60** **2.1.2:** North Sea FUs (5-10, 34): **≥ 80** WoS FUs (11-13): **≥ 80** [moved from <60 in v3.2] Irish Sea FUs (14-15): **60-79** Requirement at SG80: 2.1.1 (a) Outcome status: Main primary species are	Action lead: MSS Partner: Poseidon	**6a.** Yr. 1 - Collate and analyse catch composition for each FU with regular review, to confirm categorisation of main & minor for each FU. MSS to liaise with AFBI and Cefas regarding data.	**Complete** Cefas have provided total catch data, including landings (based on iFISH database) and discards (based on observer coverage) at Functional Unit level for the following gear: demersal trawl TR2 (70-99mm); demersal trawl TR 1 (≥100mm); and pots & creels. This dataset has allowed accurate profiling of main and minor primary and secondary species. The pot & creel data remains complicated in that landings are recorded as generic 'pot' gear, rather than specifying the target species (i.e. nephrops, whelk, crab or lobster). However, the Cefas data is at FU level, which does provide some further context. Nevertheless, lobster and crab species remain significant within the catch data. The Steering Group note that certain FUs have large creel components that interact with other species including cod. More information on nephrops targeted creel catch composition may be available if iFISH data can be analysed at trip level.	
	Action lead: WoSPO, CIFA	**6b.** Yr. 1 – Establish bait species used within creel fishery and determine outcome status.	**Complete** Most commonly cited bait used by the creel sector targeting nephrops is herring – this is purchased as frozen blocks. Other bait used is unwanted cuttings (head, fins, tails, carcasses) of gurnard and plaice, which have been landed and recorded via Registration of Buyers and Sellers (i.e. are included within iFISH database and subject to management for these species e.g. quota, MCRS etc). Conclusion: bait species are herring (main), gurnard (minor) and plaice (minor).	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
highly likely to be above biologically based limits, or if below there is evidence of recover or a demonstrably effective partial strategy. 2.1.2 (a) Management: A partial strategy is in place for the UoA (b) objective basis for confidence it will work (e) Regular review of effectiveness and practicality of alternative measures to minimise mortality of unwanted catch	Action lead: SG Partner: Poseidon	**6c.** Yr. 2 and annually thereafter - Review status of whiting and cod in 4, 6a and 7a. (annual review)	**On target** It is agreed by the Steering Group that both TR1 and TR2 are included in the assessment for nephrops trawl. (see updates below) **Action:** • SB to share more information on whiting bycatch in the Nephrops fishery with the group. • BL to forward the link to the technical surveys to FN for West of Scotland cod and Irish sea whiting that can be reviewed alongside the ICES advice.	

Whiting stock status update

West of Scotland (6a) In June 2021,



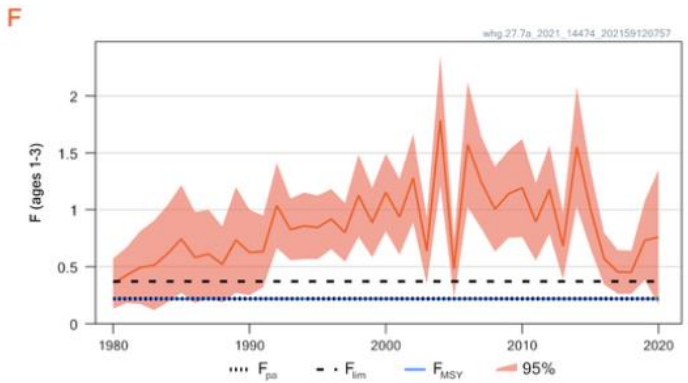
- ICES 2021. Fishing pressure on the stock is below FMSY and spawning–stock size is above MSY Btrigger, Bpa, and Blim
- Stock benchmarked in 2021 and has moved from Category 5 to category 1
- Revised catch & survey data, updated biological parameters, accounts for changes in fishery selectivity, reference points revised.
- More reliable assessment and change in stock status
- Increase in mesh size (100mm to 120mm and large square mesh panels in nephrops fishery highlighted
- This will result in a change of score from <60 to SG80

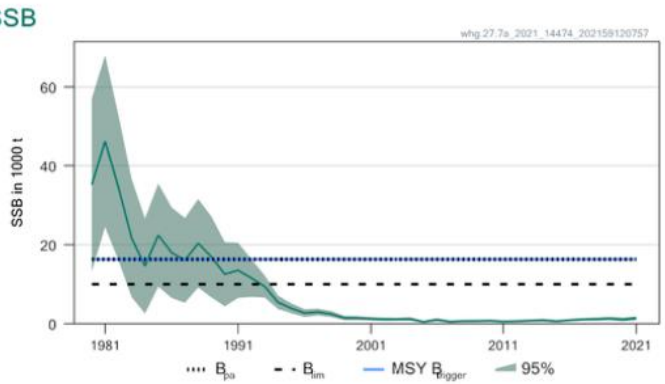
Irish Sea (7a) June 2021:

- Fishing pressure has declined since 2015, but showing recent increase.
- SSB extremely low, remains well below Blim. (<60)
- ICES advice is for zero catches in 2022 and 2023.
- Majority of whiting caught are discards in the nephrops fishery and are below MCRS

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone

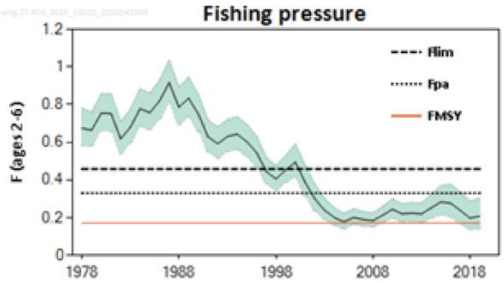
- Selective gear introduction noted to have reduced whiting catches in the last 3 years.
- But discards remain high relative to landings.

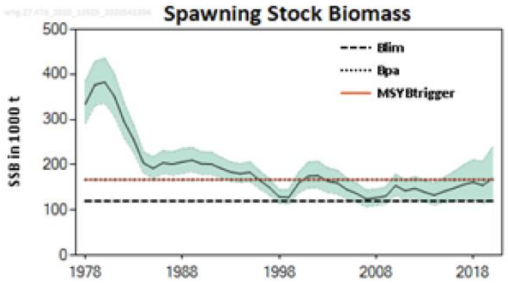




-

North Sea (4) Jan 2021:





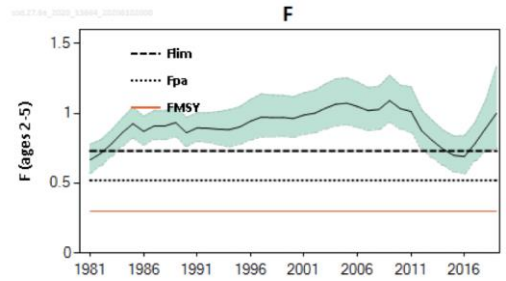
- SSB slightly above MSY Btrigger and well above Blim. F slightly above Fmsy, and well below Fpa and Flim. (80)

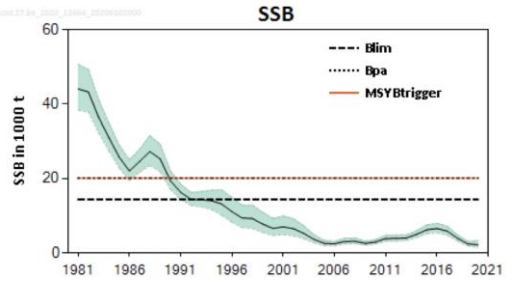
Cod stock status update

West of Scotland (6a) June 2020 [most recent available advice as of 08/02/2022]:

- June advice provided details on a benchmarking exercise that resulted in revised estimates for SSB, recruitment and mortality. This had a minor impact on the status of the stock, with F above flim and SSB declining further. SSB has been below Blim since 1993. F has been above Flim since 1982.

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone

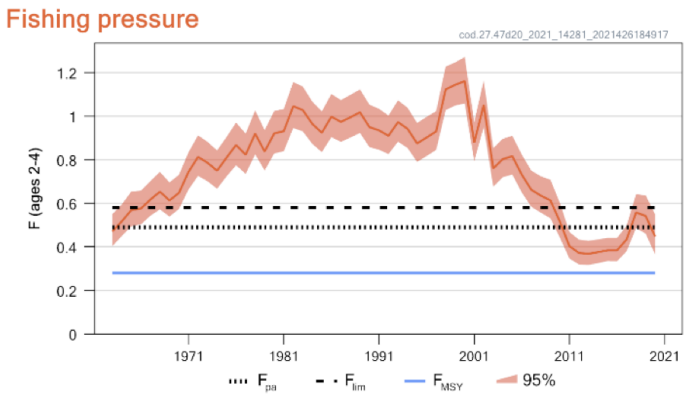


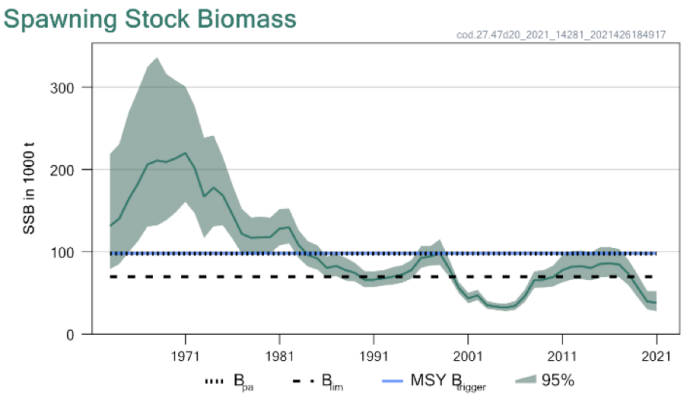


- ICES advice is for zero catch. TAC is set at 321 tonnes exclusively for by-catch. UK: 193 tonnes, Union: 128 tonnes
- The 2020 ICES assessment found that management was having no effect on biomass. As juvenile cod form aggregations, real time closures are recommended as a management option. The ICES report also raised concerns over misreporting catch from other ICES areas.
- SSB has been below Blim since 1993. F above Flim.
- However, additional management through the Sea Fish Prohibition on Fishing Firth of Clyde Order 2022 – implements a spatial seasonal closure for all fishing gears from 14 Feb to 30 Apr (11 weeks) to protect cod spawning. Previously nephrops trawl has been exempt from this seasonal closure. These measures can be expected to ensure that the fishery does not hinder recovery. However, evidence is not available of either recovery of the stock or of this strategy being effective, as such the score is between **60-79**.

North Sea (4) June 2020:

- The stock is currently below Blim and the fishing pressure above Flim.





- The SFSAG cod North Sea MSC fishery was suspended in Sep 2019 during an expedited audit due to stock status and stock rebuilding failing to reach SG60.
  The change in status is due to a downscale of SSB and upward revision of F in the 2019 stock assessment (2019). The stock is below PRI, and while there is a strategy in the form of a TAC, there is not evidence of recovery, nor has the strategy been shown to be demonstrably effective (SSB remains in downward trend). SG80 is therefore not met for outcome status.

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone

The stock is currently below Blim, with SSB at its lowest levels.
Fishing pressure is below Flim and Fpa, but above FMSY.
Benchmarked in 2021 with changes to model setting, input data (natural mortality, stock weights) and reference points re-estimated.
TAC set via trilateral arrangement between EU, Norway and UK (see here)

TAC set for 2021 at 15,911 tonnes (which is a 10% reduction on 2020), ICES advised 14,755 tonnes. Modelling shows catch of 15,911 tonnes will not hinder recover (it would result in 43% growth in SSB) (ICES, 2020). The TAC is therefore expected to ensure that the UoA does not hinder recovery of the North Sea cod stock and therefore SG60 is met for 2.1.1 and the score remains 60-79

In terms of management, a corrective action plan was instigated in Jan 2020 (which follows a FIP process) via a cod management paper produced by SFSAG that ICES has recognised as a precautionary management plan. Spatial restrictions have also been applied to all but pelagic gear. There are voluntary closures for cod in North Sea fisheries, which have been supported by Fisheries Innovations Scotland (FIS). The voluntary closure uses a move on system when a vessel encounters juvenile cod. The management PI (2.1.2) score therefore increases from 60-79 to **80**.

- For the North Sea cod stock, the aim is to have SSB above Btrig for the first time since the 1980s and that the North Sea cod benchmarking will be in 2021.

Irish Sea (7a) June 2021:

- ICES advice is for catches in 2022 to be no more than 74 tonnes. The advised catch for 2022 is lower than the 2021 advice because of the decrease in the index ratio.
- Biomass index in 2021 below average for 2020-2021. Reference points previously defined for this stock are based on an assessment that is no longer considered appropriate. No modelling to predict outcome on SSB. ICES 2020 qualitative evaluation considered that the stock size is decreasing.

- Score remains <60

Summary of scores for whiting and cod as of 08/02/2022

		West of Scotland	Irish Sea	North Sea
Whiting	2.1.1	**80**	<60	**80**
	2.1.2	**80**	60-79	**80**
Cod	2.1.1	60-79	<60	60-79
	2.1.2	**80**	60-79	**80**

Scores for cod in West of Scotland and North Sea, and whiting in North Sea align with the findings of the SFSAG PCDR

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
		6d. Yr. 2-3 - Review implementation of landing obligation within nephrops trawl fisheries and with respect to above main primary species stocks.	**On target** For both the North Sea and North West Waters, a de minimis exemption to allow vessels to discard a limited amount of Nephrops below MCRS has been agreed by Member States and the Commission (Marine Scotland, 2019[5]). In both the North Sea and North West Waters, Member States and the Commission have also agreed a high survivability exemption for nephrops caught with pots, traps and creels which will allow those nephrops to be returned to the sea as they are highly likely to survive the capture process. For all primary species subject to quota and caught by nephrops trawl, unless there is a derogation, these species count towards the LO. Fish caught in nephrops creels can be returned to sea, based on high survivability. There remains a need to fully understand any issues arising from the implementation of the landing obligation specifically from the perspective of UK fisheries administrations.	Changed timeline to Yr2-3 in V3.1
		6e. Yr. 2 and annually thereafter - Review management of whiting in ICES Divisions 6a (West of Scotland) and 7a (Irish Sea) and cod in 6a (annual review). E.g., including comparison of TAC levels with ICES assessment catch scenarios to determine whether catch rates are hindering recovery.	**Complete** See 6c.	
	Action lead: Seafish	**6f.** Yr. 2 – Review effectiveness and practicality of current and alternative measures to minimize mortality of unwanted catch, including undersize fish.	**Complete** See 2d.	
	Action lead: SG	**6g.** Yr. 2 - Establish process for regular review of alternative measures and the associated effectiveness and practicality of such measures.	**Complete** It is agreed that the Steering Group will table an annual agenda item to review alternative measures and practicality of implementation.	
	Action lead: TBC	**6h.** Yr. 3-4 - Implement alternative measures where they are found to be more appropriate.	TBC Actions • BL to add creel gear to the alternative measures review.	
Action 7: Secondary species **Overview:** Obtain accurate profile of catch to determine main and minor secondary	Action lead: MS Policy Partner: Poseidon Stakeholder: SCFF	**7a.** Yr. 1-2 – Accurately profile catch composition of creel nephrops fishery. For example, review catch data to determine if catch composition specific to nephrops creel can be determined (i.e. separate from crab & lobster creels and whelk pots). Based on this data review categorisation of main & minor for each FU.	**Complete** As per update provided in action 6a.	Updated to Yr1-2 due to obtaining catch data

[5] https://www2.gov.scot/Topics/marine/Sea-Fisheries/discards/demersal

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
species and inform management needs. **Performance indicator:** Creel: **2.2.1: ≥ 80 (**moved from 60-79 to ≥ 80 in v3.1) Trawl **2.2.2: ≥ 80 (**moved from 60-79 to ≥ 80 in v3.1) Creel: **2.2.2: 60-79** Requirement at SG80: 2.2.1. Outcome status: Main secondary species are highly likely to be above biologically based limits. 2.2.2. Management: A partial strategy is in place for main secondary species Regular review of alternative measures to minimise mortality of unwanted catch.		**7b.** Yr. 2 and annually thereafter - Review status of main secondary species.	**Complete** A PSA has been completed for creel and demersal trawl UoAs.	
		7c. Yr. 3 - Review management of main secondary species ensuring it is appropriate to the stock status and species type.	On target Productivity and Susceptibility Analysis (PSA) for secondary species in TR1 and TR2 gear UoAs (based on Cefas data) has been undertaken. The additional species were all categorised as low to medium risk. An action remains to document the management plans for these species in the Fishery Management Plan (FMP) and assess whether any additional management needs to be implemented. A table of management measures for primary and secondary species that interact with the Nephrops fishery has been developed, based on the list of species provided by Poseidon. This demonstrates that there is partial management strategy in place. A brief summary of the assessment and management information for primary and secondary species, by region, is as follows: North Sea A full assessment is available for cod, haddock and whiting (primary species), and for plaice and saithe (secondary species). A data limited assessment is available for anglerfish, lemon sole and cuckoo ray (secondary species). West of Scotland A full assessment is available for cod, haddock and whiting (primary species), and for megrim (secondary species). A data limited assessment is available for anglerfish and thornback ray (secondary species). Irish Sea A full assessment is available for haddock, hake and whiting (primary species). A data limited assessment is available for cod (primary species). A full assessment is available for plaice (secondary species), and a data limited assessment is available for thornback ray, spotted ray and lesser spotted dogfish (secondary species). Actions • BL to share the review of primary and secondary species management with FN and JP.	Timeline updated in V3.1
		7d. Yr. 2 - Review effectiveness and practicality of current and alternative measures to minimize mortality of unwanted catch, including undersize fish and shellfish.	**Complete** See 2d.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
		7e. Yr. 2 - Establish process for regular review of alternative measures and the associated effectiveness and practicality of such measures.	**Complete** See 6g.	
		7f. Yr. 3-4 - Implement alternative measures where they are found to be more appropriate.	This action has not yet commenced.	
Action 8: ETP species **Overview:** Overlap of UoA on ETP species and associated risk, as well as appropriate management. **Performance indicator:** Trawl **2.3.1: <60** Creel **2.3.1: 60-79** Trawl & Creel **2.3.2: 60-79** **2.3.3: 60-79** Requirement at SG80: 2.3.1. Outcome status: Combined effects of MSC UoAs on ETP species are highly likely to be within set national / international limits. Known direct effects of the UoA are highly likely to not hinder recovery of ETP species. 2.3.2. Management: There is a strategy in place, with objective basis for confidence that it will work and regular review of potential effectiveness and practicality of alternative measures to minimise mortality 2.3.3. Information: Some quantitative information is adequate to assess UoA	Action lead: LINK Partner: SNH Stakeholder: Poseidon	**8a.** Yr. 1 – Source available shape files for ETP species distribution (note that reference to ETP species includes relevant PMFs).	**Complete** ETP shape files have been provided to master's student taking this task forward.	

		8b. Yr 1. GIS-based risk assessment. Listing of potential ETPs interacting with creel and trawl UoAs, and then mapping of ETP distribution overlap with UoA creel and trawling effort.	**Complete**
			The environmental sub-group has progressed this action. The list of ETPs provided in the pre-assessment has been reviewed and expanded by WWF, who then circulated to DAERA, SNH and JNCC. Good feedback on the comprehensive list and also which ETP species might interact with the fishery.
			This task is being informed by a Masters student project with funding support from Fishmongers' Hall. A number of current projects could inform this task:
			• Aberdeen University is looking at the spatial overlap of this fishery with elasmobranchs.
			• Marine Protected Area Management and Monitoring (MARPAMM) projects being conducted in the Irish sea.
			• Spurdog trial through Cefas looking at 6 months of recorded data – focused on survivability as this species is becoming a chock species. Although this has been paused.
			The masters ETP risk analysis project was completed:
			• A final risk analysis score for the ETP species that were taken forward for analysis was produced through combining the scores of encounterability, aerial overlap and reported bycatch frequency.
			• Six species were indicated as high risk with the trawl. They are: porbeagle, spurdog, starry ray and tope, white skate and white cluster anemone.
			• For creel gear, humpback and minke whale were considered most at risk of entanglement – based on literature review - but did not have final scores due to absence of creel data.
			Conclusions and recommendations were as follows:
			• It was found that trawling posed a significant risk to ETP species
			• It was recommended to improve elasmobranch interaction records and best practice through consultation with: ICES Working Group on Elasmobranch Fishes (WGEF), Shark Trust UK and CEFAS
			• To improve the results of the study the following is recommended:
			  • Conducting habitat suitability analysis to get a more accurate portrayal of where ETP species may actually inhabit.
			  • Having greater industry consultation to 'ground-truth' some of the results.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
related mortality of ETP species			• Greater data of ETP interaction in the creel sector	
	Action lead: TBC	**8c.** Yr. 2 - Development of fishery dependant recording protocol, to record, analyse and monitor ETP interactions and outcomes (e.g. returned alive) for trawl and creel UoAs.	**Complete** A small amount of funding has been secured for this by SWFPA through the North Connect Fund. Poseidon developed an ETP interaction log, based on reviewing existing recording protocols in practise for the SFSAG MSC certified fisheries and the Danish Fisheries Producer Organisation Vessel Diary (designed specifically to record ETP species interactions).	
		8d. Yr 3-4 - Development of options for management approaches for reducing ETP interactions and impacts, if necessary.	This action has not yet commenced.	
		8e. Yr 2 - Establish a protocol / process for undertaking a regular review of alternative measures to minimise UoA related ETP mortality. Undertake review and document effectiveness and practicality of alternative measures.	**Complete** See 2d.	
		8f. Yr. 3 - Implementation of recording protocol and pilot projects for ETP management approaches.	**On target** The ETP Interaction Log (8c) will be tested with some willing skippers. This is potentially delayed due to the current COVID pandemic and Brexit uncertainties/complications. Consideration is also being given to the most practical way of implementing a recording protocol, including use of the recently developed Clean Catch UK App. The development of a wheelhouse guide is underway to aid identification of ETP species. It is noted that many experts voluntarily get involved with verifying species from images submitted to iRecord, iNaturalist recording tools. A PhD working with Artificial Intelligence to monitor bycatch is also noted. The alternative measures report has been updated to include observations of creel bycatch and ghost gear in several Scottish lochs and the Western Isles, including a summary of interviews with fishermen on large animal entanglement. A high-level summary of the invertebrate, fish, mammal and crustacea bycatch has been added to report, as well as bycatch mitigation techniques. The cause, effect and mitigation of ghost fishing has been updated, with minimal impact reported. The Scottish Entanglement Alliance has produced a comprehensive report on mitigation measures Actions • Steering Group to contact the Secretariat if they wish to join the Clean Catch App trial.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			• Secretariat to request update from Mike Kaiser on his research project using AI to identify bycatch. • MS to arrange a wheelhouse sub-group meeting to finish the guide by April 2022, and to contact Steering Group members with the outstanding images and content needed. • BL to review list of ETP species to determine if there are any alternative measures that have been missed in relation to ETP. • The Secretariat to set up a call with BL and the environmental sub-group to discuss the ETP section of the alternative measures report. • All Steering Group members to submit any supporting information to FN for ETP species outcomes, that will contribute to the annual review scoring. • JP to follow up with Mike Kaiser on use of artificial intelligence on vessels to monitor catch composition. • CP to share feedback with the Steering Group from the skippers trialling the Clean Catch app	
		8g. Yr. 4 - Mainstreaming of ETP management approaches and introduction of a risk-monitoring system.	This action has not yet commenced.	
Action 9: Habitats **Overview:** The spatial scale, intensity and impact on commonly encountered and VMEs, needs to be quantified within the UoA. Based on this, appropriate management approaches need to be developed. **Performance indicator:** Trawl **2.4.1: <60** Trawl & Creel **2.4.2: 60-79** **2.4.3: 60-79** Requirement at SG80: 2.4.1. Outcome status: The UoA is highly unlikely to reduce structure and function of commonly encountered	Action lead: Seafish Partners: MSS, SNH Stakeholder: Poseidon	**9a.** Yr. 1 – Review overlap of trawl and creel fisheries (footprint analysis) and vulnerability of commonly encountered habitats and VMEs, including Scottish PMF habitats and UK MPA network habitat features.	**On target** The environmental sub-group (ESG) agreed that burrowed mud would be considered a commonly encountered habitat when burrowed mud is not designated in a protected area, and is not associated with specific VMEs. Burrowed mud will be considered a VME if VME features are present, as designated by OSPAR and Priority Marine Feature (PMF) definitions: • Where there are sea pens and burrowing megafauna • Volcano worm • Firework anemone • Burrowing heart urchins • Mud burrowing amphipod • Tall sea pens and Northern sea fan and sponge communities A recent Masters project looked at habitat interactions with Nephrops gear, and comments showed: • there are designated marine protected areas (MPAs) for burrowed mud features that do not have management measure in place [this could warrant voluntary measures being implemented in areas of priority]. • a need to better understand the impacts of creel and trawl gears on burrowed mud, and the recoverability of VMEs and commonly encountered habitats in the UoA. • clarification on the historical extent of VMEs, this is based on United Nations General Assembly resolution 61/106 in 2006. If damage to VMEs occurred before 2006 the fishery would not be held accountable for historical damage but further damage is not	
	Action lead: SG Resources: Masters student	**9b.** Yr. 2-3– Assessment of nephrops trawl impact on habitats, including analysis via Bangor University habitat assessment tool		Timeline updated in V3.1
		9c. Yr 3-4 – Review VMEs based on knowledge of the historical extent and distribution.		Timeline updated in V3.1

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
habitats and VMEs to a point where there would be serious harm. 2.4.2. Management: There is a partial strategy in place to achieve Habitat Outcome 80 level. There is some quantitative evidence that management is being implemented and UoA complies with VME related management.			acceptable. If a VME is identified after 2006 then this is deemed to be its unimpacted state and vessels should avoid further damage. If fishery impact occurred after 2006 then the unimpacted level is the idealised expected recovery state (set in 2006) or whenever the VME has been identified. It is noted that the Bangor Habitat Assessment tool allows users to insert known fishing data to calculate whether commonly encountered habitats would recover within five years to 80% of its unimpacted state, as set out in the MSC Standard. The Steering Group discussed scope of the research needed to address this action and agreed it would be more appropriate to do this at a PhD or post doc level. WWF commented that a fishery impacting VMEs prior to 2006 and continued doing so to present day would lack proper accountability of the damage their activities had caused if the unimpacted reference point was 're-set' in 2006. The interpretation log from MSC on this point is available here and summarised in the below schematic. NatureScot offered to research the status of the designation for 'other burrowed mud', and how it should be managed. It is noted that work is underway with Ulster University to attach pressure sensors to the footrope of trawl gear. It has been tested in the USA but not published. The result should give more evidence of the interaction between the gear and seabed when being towed, with tests ongoing in the Irish Sea. A new Post Doc research project has commenced at Bangor University, 'Determining habitat impact in Nephrops fisheries', with the aim is to estimate the relative benthic status (RBS) and recovery of benthic communities across the UK. Data required to achieve this includes calculating fishing intensity of trawl and creel gear; depletion of fauna per trawl, and fauna recovery rate. Habitat data, VMEs and PMFs will also be mapped. Actions: Secretariat to: • facilitate commissioning of further habitats research and search for funding. • speak with MSC Science and Standards team for more information on the 2006 baseline and interpretations • BL to send the Bangor University gear modification report to the Secretariat. • BC to share the results from the footrope pressure sensor trials in the Irish Sea with the Secretariat when the trials are complete. • JGH to connect with Mairi Fenton on data to support Action 9c (Review VMEs based on knowledge of the historical extent and distribution)	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			• RH to coordinate an update from Defra at the next Steering Group meeting on iVMS rollout in English waters.	
	Action lead: MSS Partners: UK FAs	**9d.** Yr 2-3 - Review status of management measures development and implementation within UK MPA network.	**On target** This can be compiled by SNH for waters under their remit. Offshore waters are within the remit of JNCC. English territorial waters are in the remit of Natural England and IFCAs. Noted that the Seafish Kingfisher MPA project will conduct a mapping and logging exercise of all protected areas in the UK and their designated management measures. (see 11b). This is expected to be completed in October 2021. The Seafish Kingfisher fishing restriction map is available here. NatureScot updates on MPA protection measures are available here. The information to support this milestone is available. It requires consideration from the Environmental sub-group of the appropriateness of current management in place within MPAs. Actions: • Review Seafish MPA mapping project when completed.	Re-ordered v2.3. Updated timescale in V3.1
	Action lead: SG	**9e.** Yr. 2-4 - Development of a Habitat Management Plan including development of options for management approaches to manage habitat interactions and impacts.	This action has not yet commenced.	Updated timescale to Yr2-3 (v1.8) Updated timescale in V3.1
	Action lead: MS	**9f.** Yr2-4 - Introduction of inshore-VMS (i-VMS), or equivalent, on all vessels <12m in length.	**On target** This action is being delivered through Marine Scotland commitment for Remote Electronic Monitoring and through the inshore modernisation programme. Implementation is due throughout 2022. Action • Steering Group to share any updates on the iVMS roll-out timeline.	Updated timescale to Yr2-3 (v1.8). Updated timescale in V3.2
	Action lead: TBC	**9g.** Yr. 3-4 - Implementation of habitat management approaches, where required. Recording and analysis of all nephrops trawl VMS data.	This action has not yet commenced.	Updated timescale in V3.2

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
		9h. Yr 4-5 – Update footprint of fishery when i-VMS is available.	This action has not yet commenced.	Updated timescale in V3.2
		9i. Yr. 4-5 - GIS reporting on extent and intensity of fishing for all vessel lengths. Mainstreaming of habitat management approaches and introduction of the risk-monitoring system.	This action has not yet commenced.	Updated timescale in V3.2
Action 10: Ecosystem **Overview:** In the medium term (3-5 years) this will be informed by Actions 6 to 9. In the short-term there is opportunity to conduct a Scale Intensity Consequence Analysis (SICA) analysis. **Performance indicator:** Trawl **2.5.1: 60-79** Trawl **2.5.2: 60-79** Requirement at SG80: 2.5.1. Outcome: The UoA is highly unlikely to cause serious or irreversible harm. 2.5.2. Management: There is a partial strategy in place.	Action lead: Seafish Partners: LINK, SNH, WWF Stakeholders: Poseidon	**10a.** Yr. 1 – Review available data / information available on ecosystem interaction, including relevant to Actions 6 to 9.	**Complete** A dropbox library for the Environment Sub-group has been created. A number of sources were provided during the SICA workshop.	
		10b. Yr. 1-2 - Constitute expert group and conduct SICA analysis to determine main ecosystems and ecosystem services impacted by nephrops trawling across the UoAs under assessment.	**Complete** A SICA workshop with an expert group on nephrops demersal trawl ecosystem impacts was held through a virtual, interactive workshop. The findings will inform action 10c.	
		10c. Yr. 3 - Identify and recommend further research and management actions that reduce disruption to the ecosystem and ecosystem services to acceptable levels. This may be aligned with actions 2, and 6 to 9.	The SICA concluded that "Overall, the SICA for ecosystem outcome status (2.5.1) meets SG60 requirements for TR1 and TR2 trawl gear targeting nephrops in the Western region and Greater North Sea, which aligns with the pre-assessment findings. Based on the fishing gear interaction with the habitat being most likely to cause effect on the ecosystem, it is recommended that ecosystem management is aligned with habitat management measures being reviewed and developed within the Action Plan." This milestone will therefore be linked with Action 9: habitats. A discussion related to Scottish oyster restoration projects occurring near fisheries and relevance of oysters as PMFs concluded that oysters will not be a PMF, but consideration for local management could be needed. It is also noted that interaction between oysters and the Nephrops fishery may be limited due to differences in habitat preferences, but may be a concern for scallop grounds.	
		10d. Yr. 4-5 - Implement management measures as appropriate.	This action has not yet commenced.	

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
Action 11: Compliance **Overview:** Focused on compliance with landing obligation and enforcement within MPAs **Performance indicator:** 3.2.3 Compliance and enforcement **60-79** Requirement at SG80: (a) The monitoring, control and surveillance system has been implemented and demonstrated an ability to enforce relevant management measures, strategies and/or rules.	Action lead: SG Partners: UK FAs	**11a**. Yr1-3 – Review the risks of non-compliance associated with the nephrops fishery (including in relation to the Landing Obligation)	**On target** This action requires that the fishery can demonstrate that it complies with national and international legislation. Marine Scotland Compliance maintains a record of all non-compliances and can provide an anonymised record of non-compliance to the Steering Group. It would be helpful to have this for each of the respective enforcement bodies from across the various countries – MMO, DAERA, Marine Scotland Compliance. It is noted that, in the absence of real-time, at-sea data, it is very difficult to ascertain fully whether vessels are complying or not – this is apt for many fisheries across the globe. Observer coverage would be useful to further inform this. The group agree that removing fish tails at sea is a legal procedure and not considered discarding. It is agreed that the best way forward is to understand how the devolved administrations implement and enforce the LO. The Secretariat will review how the Landing Obligation is being dealt with in other EU/UK MSC certified fisheries and will also speak with Marine Scotland about levels of enforcement. Actions: [from previous meetings] • Secretariat to find out level of Marine Scotland/Cefas observer coverage. • SWFPA to update on other MSC certified fishery updates and LO. • Secretariat to review how the Landing Obligation is being addressed in EU MSC certified fisheries and share with the group. • Secretariat to speak with MMO, MS and Deara on Landing Obligation enforcement, and request any (anonymised) information on incidents of non-compliance. [From 19 Oct 2020] • SS (Sam Stone, Scot LINK) to review the Fisheries Bill and how it relates to the MAP legislation • Secretariat to: a. follow up with MSC's Science and Standards team to understand if update had been made in the Standard for compliance with the landing Obligation **b.** follow up with MMO, Daera and Marine Scotland for data on non-compliance with Landing Obligation within each Fishery Administration It is noted that SFF have started a self-sampling scheme that complements the surveys conducted by Marine Scotland, which will be operating on Scottish vessels, including on some Nephrops trawls.	Update timescale in V3.1

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			It is noted that Marine Scotland have recently reported on statistics from marine and fisheries compliance, including reports of alleged illegal fishing in MPAs, reported fixed penalty notices and referrals to Crown Office. [From 16 Sep 2021] • The Secretariat to contact Marine Scotland Compliance for anonymised data on instances of non-compliance.	
		11b. Yr 1-3 – Work with the industry to establish an appropriate system for monitoring within MPAs and other closed areas for all vessels.	**On target** Beyond implementation of vessel tracking & monitoring for vessels <12m (e.g. iVMS), thoughts on approaches to this milestone have not progressed further. The Marine Protected Area Management and Monitoring Project (MarPAMM), which is developing tools for monitoring and managing a number of protected coastal marine environments in Ireland, Northern Ireland and Western Scotland (not including the Clyde). It is noted that the project has a strong inshore focus and does not cover offshore sites. The MarPAMM project is expected to be completed by 31 March 2022. It will develop six MPA management plans for: • Argyll region (including 7 SACs and 5 SPAs useful link here) • Outer Hebrides region (including 11 MPAs) • Murlough Special Area of Conservation • Carlingford Lough Special Protection Areas (cross-border) • Co Down – Co Lough region (cross-border) • North Coast Ireland – North Channel region (cross-border) Kingfisher, the consultancy arm of Seafish, is working on a project to alert skippers to what management measures are in place in protected areas. The time lag between designation of protected areas and the implementation of management measures is noted. The Kingfisher project will catalogue these measures as they come into force. • AC to obtain an update on MarPaMM progress and provide contact details of MarPAMM members to the Secretariat	Update timescale to Yr1-3 for iVMS introduction in v3.1
		11c. Yr 2-3 – Consult with Fisheries Control Agencies and wider stakeholders on proposed monitoring system.	This action has not yet commenced.	Timeline updated V3.1
		11d. Yr 2-4 – Implement monitoring system.	This action has not yet commenced.	
		11e. Yr2-3 – Provide evidence of measures in place to enforce management measures related to the Landing Obligation.	This action has not yet commenced.	Timeline updated V3.1
		11f. Yr3 – Provide evidence of compliance (or lack of systematic non-compliance) within the nephrops fishery,	This action has not yet commenced.	

<table>
<tr><th>Standard requirement</th><th>Lead & partners</th><th>Timescale / milestones</th><th>Progress</th><th>Revised milestone</th></tr>
<tr><td></td><td></td><td>including relative to Landing Obligation and closed areas / MPAs.</td><td></td><td></td></tr>
<tr><td><u>Action 12: Fishery objectives</u>

Overview: Review implications of UK exit from EU.

Performance indicator:

3.2.1 Fishery specific objectives 80

<u>Requirement at SG80:</u>

Short and long-term objectives which are consistent with achieving P1 & P2 outcomes are explicit within the fishery specific management system</td><td>Action lead: SG

Partners: UK FAs</td><td>12a. Yr 3-4 – Review how the UK exit from EU and the Fisheries Bill effect the legal framework and fishery objectives with specific focus on precautionary approach and MSY.</td><td>On target
A review of Principle 3 scoring was undertaken and presented in a separate document titled ‘2021 General Review of P3 scoring for Project UK FIPs’. The results are summarised below:
<table><tr><th>PI</th><th>Name</th><th>Likely scoring</th></tr><tr><td>3.1.1</td><td>Legal and customary framework</td><td>60-79</td></tr><tr><td>3.1.2</td><td>Consultation, roles & responsibilities</td><td>60-79</td></tr><tr><td>3.1.3</td><td>Long term objectives</td><td>≥80</td></tr><tr><td>3.2.1</td><td>Fishery specific objectives</td><td>60-79</td></tr><tr><td>3.2.2</td><td>Decision making processes</td><td>60-79</td></tr><tr><td>3.2.3</td><td>Compliance and enforcement</td><td>60-79</td></tr><tr><td>3.2.4</td><td>Management performance evaluation</td><td>≥80</td></tr></table></td><td>Added v2.2</td></tr>
<tr><td><u>Cross - cutting</u></td><td>Action lead: Whitby Seafoods

Partners: Young’s Seafoods</td><td>Development of Fishery Management Plan</td><td>It is agreed by the steering group that Whitby Seafoods will lead development of the FMP, with support from Young’s Seafoods, the Secretariat and Poseidon.

Sections of the FMP will be allocated to the relevant steering group members to draft. The progress and status of the FMP can be summarised as follows:
All sections have content, and the document is now 85 pages.
Section 4 (harvest control rules, HCR, and harvest strategy) is lacking sufficient information; this will be updated with the outcomes from the regional management groups.
Section 6 (stock assessments) has recently had additional input from CMe, EB and Mathieu Lundy on ICES advice and methodologies.
MP, AH and Andrew Brown have contributed to Section 3 (management structure) and EW, Marine Scotland Science and Daera will be approached for further input.</td><td>Added v2.3</td></tr>
</table>

Standard requirement	Lead & partners	Timescale / milestones	Progress	Revised milestone
			• Section 5 (ecosystem management strategies) requires further input from eNGOs and statutory bodies.	