

Title: Cornwall IFCA Fixed and Drift Nets (Salmonid Protection) Byelaw 2021 IA No: CIFCA 023 Lead department or agency: Cornwall Inshore Fisheries and Conservation Authority Other departments or agencies: Defra, MMO, EA	Impact Assessment (IA)			
	Date: 05/09/2021			
	Stage: Consultation			
	Source of intervention: Domestic			
	Type of measure: Other			
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Summary: Intervention and Options	RPC Opinion: Not Applicable
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Cost of Preferred (or more likely) Option (in 2019 prices)			
Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status
£-72.3m	£-84.4m	£9.8m	Qualifying provision

What is the problem under consideration? Why is government action or intervention necessary?
 Salmon and sea trout populations are under threat in UK waters and are vulnerable to, amongst other pressures, accidental bycatch in monofilament nets set for seafish on or close to the surface in shallow coastal waters, during their migratory runs. Voluntary management measures would not be effective in these circumstances due to the number of businesses potentially affected, and as a result, byelaw is required to manage netting effort in the identified high-risk areas.

What are the policy objectives of the action or intervention and the intended effects?

- Among many policy drivers the main aim of this measure is to assist the delivery of the national Defra Salmon Five Point Approach by lessening the risk of incidental bycatch of salmonid species during their marine phase in areas around the coast of Cornwall known to be important to these species.
- The intervention will dramatically reduce the risk of accidental bycatch of salmon and sea trout by prohibiting the use of fixed and drift nets in three river mouths and introduce conditional use of fixed and drift nets in a further nine coastal areas.
- The intended effect of the intervention is to increase the opportunity for salmonid species to successfully return to their natal rivers to spawn.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

- Do nothing.
- Voluntary measures.
- Prohibit the use of fixed and drift nets used to catch for sea fish within three river mouths and restrict the use of such nets within a further nine coastal areas in the Cornwall IFC District through the introduction of an IFCA byelaw.

All options are compared to option 1. Option 3 is the preferred option as it will prohibit or restrict the use of surface nets which will reduce the risk of accidental bycatch to salmonid fish populations migrating along the coast.

Will the policy be reviewed? It will be reviewed within five years. If applicable, set review date: TBC/Year					
Is this measure likely to impact on international trade and investment?			No		
Are any of these organisations in scope?		Micro Yes	Small Yes	Medium No	Large No
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)			Traded: n/a		Non-traded:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible SELECT SIGNATORY: Date:

Summary: Analysis & Evidence

Policy Option 3

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year 2019	PV Base Year 2020	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: -78.3	High: 18.1	Best Estimate: -72.3

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low		0.2	1.7
High		10.0	86.1
Best Estimate		9.8	84.4

Description and scale of key monetised costs by 'main affected groups'

Reducing areas open to the use of nets at or near the sea surface by small inshore commercial fishing vessels will result in the loss of fishing opportunities for sea fish. Reductions in revenue from first sale of six relevant species caused by restrictions in the proposed areas has been estimated, using MMO landings data, to be c. £106,405 annually. Consultation responses indicated the intervention will result in losses of c. £1.0m annually for the port of Mevagissey alone. This figure included direct losses as well as loss of added supply chain value and losses to ancillary businesses. However, the figure was not been substantiated by any evidence of how the figure was calculated.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low		0.9	7.7
High		2.3	19.8
Best Estimate		1.4	12.1

Description and scale of key monetised benefits by 'main affected groups'

Salmon caught recreationally have been valued to have a total economic value of between £5,800 - £16,000 per fish but it is not possible to attribute a value to any increase in numbers of individual fish entering salmon rivers as a result of this byelaw. Average expenditure per rod per day for salmon and trout has been estimated from relevant literature at between £93 and £227.

Other key non-monetised benefits by 'main affected groups'

Increased survival of salmon and sea trout should benefit populations within key salmonid rivers, having the accompanying benefit of improving recreational rod and line fisheries. Following willingness to pay (WTP) estimates, improving populations of salmonids has the potential to increase revenue to the EA in respect of rod licences and also have the potential for increased expenditure with recreational angling businesses and benefit to wider tourism economy.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%
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No consistent data on levels of accidental bycatch of salmonids in coastal fixed and drift nets is available so it is impossible to assess whether byelaw is having a direct impact on salmonid populations when considered against impact of other factors on their survival at sea and within freshwater catchments.

Data on landings by netting vessels is not collected directly by Cornwall IFCA so estimate of financial impact of byelaw on fishing effort has been estimated using landings data from 2017-2019 from MMO.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m:			Score for Business Impact Target (qualifying provisions only) £m:
Costs: 9.8	Benefits: 0.0	Net: 9.8	
			49.0

Evidence base

1. Introduction

- 1.1 Inshore Fisheries and Conservation Authorities (IFCAs) have duties to ensure that fish stocks are exploited in a sustainable manner and that any impacts from that exploitation on the marine environment are reduced, or suitably mitigated, by implementing appropriate management measures (e.g. this byelaw). Implementing this byelaw will ensure that fishing activities are conducted in a manner that ensures the wider marine environment, specifically salmonid fish species, are suitably protected.
- 1.2 This impact assessment (IA) extends in scope to the Cornwall Inshore Fisheries and Conservation District and is in support of a byelaw. This has been made under sections 155, 156 and 158 of the Marine and Coastal Access Act 2009 (MaCAA).
- 1.3 This new byelaw restricts the use of surface and drift nets being used to catch sea fish in a total of nine areas around the coast of Cornwall and prohibits the use of any such nets in a further three areas.

2. Problem under consideration and rationale for intervention

- 2.1 Under s.153(2) of MaCAA 2009, IFCAs have duties to ensure that sea fisheries resources, typically fish and shellfish stocks, are exploited in a sustainable manner. IFCAs also have a duty within the same section of MaCAA to seek to balance the social and economic benefits of exploiting the sea fisheries resources of their districts with the need to protect the marine environment from, or promote its recovery from, the effects of this exploitation. Legal counsel's opinion has been sought on this matter and the conclusion provided was that salmonid species should be considered as a part of the wider marine environment.
- 2.2. There is substantial evidence of the poor and declining state of salmon and sea trout populations in England, as well as across the wider geographical range of salmon within the North Atlantic. Fisheries monitoring to assess the status of migratory fish stocks in English main salmon and sea trout rivers in 2019 showed that 39 out of 42 main salmon rivers are 'at risk' or 'probably at risk'. None were categorised as 'not at risk'. For the 44 main sea trout rivers, six were 'not at risk' and 18 'probably not at risk', with 18 rivers 'probably at risk' and two 'at risk'. Many of the impacts on fish within river catchments relate to poor or declining water quality relating to diffuse water pollution from predominantly agricultural activity in rural areas including soil erosion and farm run-off, but there are also inputs from wastewater treatment works and highways run-off. The House of Commons Environmental Audit Committee is currently conducting a hearing into water quality in rivers in England, focusing on urban diffuse pollution and the water industry, following on from a related inquiry in 2018 into nitrate inputs. Evidence in the current inquiry has raised the issue that implementation of regulations to manage agricultural impacts on freshwater quality since 2018 have been constrained by reductions in funding for the Environment Agency (EA).

- 2.3. In 2016, as a result of concerns regarding declining salmon populations in England, Defra, with the Environment Agency and other delivery partners, committed to a national Salmon Five Point Approach which sets out a series of actions for salmon conservation and management. The Five Point Approach includes improvements to water quality and physical river habitats as well as actions to improve the survival of salmon in their marine phase in particular in coastal and estuarine waters, as well as influencing the management of fishing pressures outside of UK waters. A contributory factor in the decline in salmonid survival in their marine phase, has been linked to climate change induced environmental changes which are believed to affect feeding. Reducing other pressures in freshwater and coastal environments has resulted in improved smolt production and returning numbers of adult fish. IFCA byelaws have been identified as having a role in contributing to the conservation of salmon and sea trout, by the management of fishing for seafish in areas where the activity can impact on migratory salmonids.
- 2.4. This byelaw allows Cornwall IFCA to fulfil its obligations conferred by section 153(2)(b) of MaCAA. It should be noted that section 153(10) clarifies that IFCAs are not responsible for ensuring the exploitation of salmonid species is sustainable. However, following Counsel's opinion, Cornwall IFCA recognises that salmonid species form part of the wider marine environment and therefore, due to their conservation status, require management intervention to minimise or remove the potential for bycatch in fishing for seafish in the areas described in the byelaw schedule. Although the primary aim of the proposed byelaw is to protect salmonids in those areas where they have been identified as being most vulnerable to bycatch, there are the wider benefits to other species that are targeted in those areas by the removal or reduction of the activity. In addition to the benefits to targeted species, other protected species such the anadromous Allis Shad (*Alosa alosa*) will have an increased level of protection from incidental bycatch.
- 2.5. Privileged legal opinion suggested that the existing legacy byelaw to manage surface nets for the protection of salmonid species around the Cornish coasts, dating originally back to the 1980s, required replacement to meet the present day needs of such a measure. The new byelaw will revoke the legacy byelaw whilst maintaining, and in several areas extending, the length of coastline covered by the proposed measures. Additional to the increased length of coastline compared to that in the legacy byelaw, the proposed byelaw includes three new areas where both fixed and drift nets are to be prohibited, two of which are in and around the entrances of the two primary salmonid rivers in Cornwall.
- 2.6. Inshore netting for a range of seafish species occurs around the coast of Cornwall and provides an income for a fleet of 300 under 10m vessels which are operated either singlehandedly or with a crew. Each vessel effectively represents a micro or small scale business in its own right. The measures contained within the byelaw will affect the operation of many of these vessels in different ways, depending upon their operation and location. The reduction of fishing opportunities for these micro and small scale businesses that rely on being adaptable to seasonal changes in target species, may result in a loss of income which when combined with variable catch limits for pressure stock species and other financial difficulties following COVID 19 and EU exit could seriously affect the viability of these businesses if alternative sources of income cannot be found. If alternative incomes cannot be achieved through displacement to other areas and other types of fishing it cannot be ruled out that some of these businesses may fail, having a knock-on effect to ancillary businesses providing goods and services in and around the ports and harbours where under 10m netters form a significant part of the resident fleet.

- 2.7. Declines in salmonid stocks are reported on all English rivers including in the SW, where in 2019, 13 rivers were classified as being at risk and seven as potentially at risk in terms of their salmon populations. Rod catches of both salmon and sea trout are declining annually, despite high recorded rates of catch and release including mandatory measures on rivers including the Camel. The sales of salmon and sea trout rod licences had been falling annually and from this, an estimate had been made that there has been a reduction in angling effort in the South West by two thirds from 1994 to 2018. However, the impacts of the covid-19 pandemic have driven a large resurgence in angling with an increase in freshwater rod licence sales nationally from over 100,000 to about 750,000 between April and July 2020. As well as the income generated from licences, the economic value of angling for these species includes the expenditure on tackle, accommodation and travel and will support associated businesses offering these services within Cornwall.
- 2.8. Intervention is required at all levels and by many different bodies to halt the decline in salmon and sea trout stocks, as reflected in the priorities of the national Salmon Five Point Approach. Nationally and locally, commercial nets licensed by the Environment Agency for the commercial targeting of salmon and sea trout are in the process of being removed as nationally, these caught 10,645 salmon (5 year mean 15,538) and 24,082 sea trout (5 year mean 47,135).
- 2.9. The accidental bycatch of fish in nets set for other seafish species is only a very small part of a much wider array of pressures on these species, but it has been identified as having a potential impact in shallow coastal areas adjacent to rivers which support populations of salmon, or more commonly in Cornwall, sea trout. As these areas along the Cornish coast where salmonid fish migrate are also important areas for commercial fishing vessels using surface nets for a range of seafish species, voluntary or market led measures would not resolve the issue. Restrictions on netting and their subsequent economic impact on small, inshore vessels, are seen by commercial fishermen to be disproportionate both to the risk of salmonids being caught and to the relative impacts of other factors on the health of these species. This has been borne out in the responses received both by correspondence and during meetings in the three informal consultation stages which have been used by Cornwall IFCA to support this byelaw.
- 2.10. Equally, there is support for the creation of a new byelaw to address the issue but during the informal public consultation stages, relevant respondents criticised the measures it contained as not being extensive enough.

3. Rationale and evidence to justify the level of analysis used in the IA (proportionality approach)

- 3.1. The descriptions of the financial impacts on individual commercial fishing vessels and on one associated fishing port was obtained during the informal consultation stage in December 2020 to Jan 2021. Cornwall IFCA does not have a mechanism for collecting landings data for the netting vessels which would be affected by this byelaw so data on landings of relevant species (mackerel, herring, red mullet, grey mullet, bass, sardine) has been obtained from the MMO through a Data Protection Act request and this data used to estimate the potential financial impacts of the measures proposed in the byelaw.
- 3.2. Cornwall IFCA also does not directly collect any data on the levels of accidental bycatch of salmonids in nets used for seafish. Responses from individual commercial to the informal consultations refer to occasions when this has happened but this data is not routinely collected and Cornwall IFCA does not operate a permit system to manage netting for seafish which could incorporate this detailed reporting. The Cefas observer programme (2003 -2018) sampled vessels from all gear types across all ICES areas in England and

attributed one seatrout bycatch to one gillnet in ICEAS sub-rectangles 29E4 and 29E5, from 131 gillnets sampled.

- 3.4. Data from trial netting by the SAMARCH project in Whitsand Bay between April and June 2019 resulted in the capture of six salmon and 22 sea trout over 12 days. In 2021 the SAMARCH project netting resulted in 22 sea trout being caught in the same area over 11 occasions. However, in 2021 no salmonids were caught during three netting occasions around St Ives Bay.
- 3.5. Information on the values of salmonids to angling in the SW were also obtained through the informal consultation, from representative organisations and individuals, drawing on previously published reports.
- 3.6. Between September and December 2019 Cornwall IFCA was involved in a project to trial the development of an environmental DNA (eDNA) monitoring method for inshore fish populations carried out in Cornwall, Devon & Severn and Southern IFCA Districts. The results returned no evidence of salmonid species at the two sampling sites, Falmouth Bay and near Gribben Head, in the Cornwall IFCA district. Salmonids were only recorded at the two sampling sites in the Southern IFCA district.

4. Description of options considered

4.1 Option 1 'Do Nothing'

This option was deemed not to be appropriate. The existing byelaw for the management of netting in coastal areas for the protection of salmonids requires updating to meet current needs.

4.2 Option 2 Voluntary agreement

This option is not appropriate as there is legislation which currently exists that needs to be revoked. Data from enforcement activity by Cornwall IFCA shows that there is netting activity within the areas which would be subject to the restrictions within this byelaw, as these areas are important for commercial vessels catching a range of seafish species. This fishing activity would not cease as the result of a voluntary agreement.

4.3 Option 3 Recommended Option Cornwall IFCA makes a new byelaw

A byelaw is made which prohibits the use of all nets within three areas and restricts the use of surface fixed and drift nets in a further nine areas around Cornwall, within 0.5nm of the coast. This would reduce the interaction between these nets and salmon and sea trout migrating along the coast. Any nets used in these nine areas would have to be set at a depth of 3m below the surface of the water which would result in areas where the use of nets to fish for particular species would not be possible due to limited water depth. This would result in displacement of fishing effort into areas without restrictions and vessels leaving the fishery to either target other species, use other fishing methods, or leave the industry completely.

- 4.4. The current form of the byelaw (2021) has been subject to informal public consultation. Three previous informal consultations were undertaken, the first in 2017 to gather information about the patterns of fishing activity and salmonid bycatch directly from both recreational and commercial fishermen, a second in 2019 and a third in 2020 to gather feedback on a series of proposals for a new byelaw, including a series of closed and restricted areas for netting. The feedback received throughout this process was reported to Cornwall IFCA's members and resulted in the version of the byelaw which is subject to this IA in 2021.

5. Policy objective

- 5.1. The key policy objective relevant to this impact assessment is to provide protection to Atlantic salmon (*Salmo salar*) and sea trout (*Salmo trutta*) from accidental bycatch by reducing the area where fixed and drift nets can be set around the coast of Cornwall. The measures proposed cover 26% of the length of the coastline. The intended outcome is that there is an improvement in salmon and sea trout populations in local estuaries and rivers, including the River Camel and Dartmoor Special Areas of Conservation (SAC), where salmon is a qualifying feature of both sites.
- 5.2. Evidence of some improvement could potentially be seen from data from fish counters present in certain rivers, e.g. Tamar. However, this outcome will be very difficult to attribute directly to the effect of the byelaw due to the greater overall impact of other factors, including water quality, river flow, land use, availability of spawning habitat, offshore fishing activity outside Cornish and UK waters and the effects of climate change.

6. Summary and preferred option with description of implementation plan

- 6.1. **Preferred option:** Cornwall IFCA makes a new byelaw to prohibit the use of fixed and drift nets in three coastal areas and restrict their use in a further nine areas. This option has been selected because it reduces the interaction between these nets and salmon and seatrout within shallow coastal areas which they are known to use during their migration into rivers and estuaries.
- 6.2. **Implementation:** This is through secondary legislation by means of an IFCA byelaw, under the relevant sections of Marine and Coastal Access Act 2009. There will not be any transitional arrangements but if confirmed, IFCA officers will ensure that the relevant information is shared widely and explained clearly to all affected sectors. Following this initial period, compliance monitoring and enforcement where necessary will be undertaken by IFCA officers as part of the IFCA's risk-based enforcement plan which is reviewed annually.

7. Monetised and non-monetised costs and benefits of each option (including administrative burden)

The option 3 will be analysed below is compared to option 1, the 'do nothing' option.

Option 3 - Recommended Option Cornwall IFCA makes a new byelaw

- 7.1. **Monetised costs:** Responses received during informal consultation from two owner/skippers of inshore under 10m netting vessels predicted 60 -70% loss of income due to the location of their current fishing activity within proposed restricted areas. Losses of £1000 to £10,000 per year were referred to.
- 7.2. Landing data was requested by CIFCA officers from the Marine Management Organisation for 2017, 2018 and 2019, covering a range of sea fish species typically caught in fixed and drift nets in shallow coastal waters around Cornwall. Data is collected on the basis of ICES sub-rectangles, whilst the spatial extent of the byelaw relates to the length of coastline (26% of total length) covered by the netting restrictions it contains. Using an average of the three years of landings data and assuming 26% of coastal length as a proxy for the overall quantity of landings that could be affected by the measures in the byelaw, an estimate was made of an annual first sale loss of £106,405.
- 7.3. Mevagissey Harbour Trust (MHT) reported that 62 vessels work from Mevagissey Harbour, supporting 94 full time jobs, with annual landings of £2.5m, of which MHT derives 2.5% as landing dues. MHT estimated that 75% of fishing activity was conducted within close to or within 500 nm of the coast and as a result, they predicted that the byelaw could cause the loss of £1,000,000 in the value of landings, and the loss of 30-40 affected vessels from the harbour as they would no longer be viable. This would lead to a loss of £96,500 in revenue for the harbour, resulting from a reduction in landing dues, mooring dues, ice sales, parking fees and associated visitor revenue. This would represent a loss overall of 39% of the total turnover for MHT and could prevent future investment in the harbour structure and flood defences.
- 7.4. MHT estimated that this reduction in the fleet operating from Mevagissey would result in the loss of 50 fishing jobs, which would have a multiplier effect to 250 jobs ashore in service industries relating to fishing, in addition to the impact on the wider economy of the village, with an estimated impact of £10,000,000 per year to the local economy.
- 7.5. **Non-monetised costs:** The majority of individual responses to the informal consultation in December 2020 – January 2021 objected to the proposed byelaw due to the impact it would have on their fishing activities and viability of their businesses as a result of the location of their fishing and the types of gear or species which they relied upon. Most made reference to either experiencing a complete lack of bycatch of salmon and sea trout or very infrequent occurrences of a single sea trout in, for example, five or ten years, so felt that the loss of fishing grounds was not proportionate to the perceived risk of encountering and catching salmonids.
- 7.6. Almost all reflected on the increasing economic and regulatory pressures particularly on the <8m fleet resulting in far less flexibility for smaller vessels to continue to fish inshore within the existing constraints of weather, space and availability and access to fish and crustacean shellfish stocks.

- 7.7. To avoid fishing in restricted areas, affected vessels will require longer steaming times to alternative grounds with increased fuel costs and time taken, if fishing opportunities exist. Diversification into crustacean shellfish, even if space on suitable grounds is available, will create additional pressure on these stocks at a time when export markets are unpredictable and prices are suppressed, and when effort in this fishery is already too high.
- 7.8. In 2017, 300 <10 m netters were present in Cornwall, with the highest numbers in Mevagissey (57), Newlyn (66), St Ives (17), Padstow (10), Coverack (10) and Helford (9). As all these ports are located within or next to either prohibited or restricted netting areas, there will be a financial impact on the majority of these vessels but without access to landing data, it is not currently possible to estimate the impact across the fleet.
- 7.9. Cornwall IFCA operates a risk-based approach to enforcement and this new byelaw will be integrated into that risk profile and met within the current budget.

7.10. Monetised benefits: It has not been possible to attribute overall values to the key monetised benefits of this measure, as this would require an assessment of the increase in the abundance of salmon and sea trout which could arise from the removal or restriction in netting effort within the 12 areas set out within the byelaw. The total economic value of salmon has been estimated to be between £5,800 - £16,000 per fish when caught recreationally, a value which is derived from a number of studies. The Environment Agency's Economic Evaluation of Inland Fisheries 2009 reported average expenditure of £175 per person per day for salmon and sea trout angling. In the absence of current economic data, the average daily expenditure figure has been raised to £227 when the Consumer Price Index (CPI) method was applied to estimate the impact of inflation since 2009. If the revised figure is applied to the estimates provided of 10,000 angling days in the SW, it yields a result of £2,250,000 of annual total economic benefit to the South West region in 2021. However, no detail is available on what proportion of this angling effort occurs in Cornwall and how any future change could be attributed directly to the byelaw. A more recent report by the Norwegian Institute for Nature Research in 2019 valued the average daily expenditure for angling for salmon and sea trout in England and Wales at £90, excluding the annual cost of a rod licence. Again, applying the CPI method to make allowance for inflation, there is a 3.9% increase, making the daily estimated expenditure in 2021 £93.53/day.

7.11. Non-monetised benefits The desired benefit is to improve the numbers of adult salmonids returning to spawn in their natal rivers and the improvements this should deliver to larval production. Responses from angling associations and representative organisations made reference to the economic value of salmonids to both local and visiting anglers, to recreational fishing businesses and to the wider tourist economy within a predominantly rural area. Also mentioned was the benefit of the economic activity associated with restoration of salmon habitats and the infrastructure supporting recreational salmon angling. Reference was made to the value of salmon caught on rod and line being worth between 25 and 260 times as much as commercially exploited salmon. The value of angling as a sport and for wellbeing was also raised. Reference was made by two respondents to the wider environmental benefits on other marine species of reducing netting in particular areas.

8. Direct costs and benefits to business calculations

- 8.1. Using the EANDCB calculator, it was estimated that the net cost to business would be £9.8m when applying the financial impacts information provided to the Authority during previous consultations. Despite operating a strategy of risk based enforcement, due to the

increased length of coastline of the proposed measure compared to its predecessor, it will place additional time and asset demands on a resource that is already working at capacity.

8.2. Estimates for the benefits of the measures within the byelaw have been quantified using the average expenditure per person per day for salmon and sea trout angling, multiplied by

estimates for angling in the south west, as figures were not available for Cornwall. It is not possible to assess whether benefits will have a wider impact in the south west.

9. Risks and assumptions

- 9.1. The key assumption about the benefits of this intervention is that the introduction of this byelaw will offer effective protection to salmon and sea trout within 12 locations around the coast and that this will have a tangible benefit to local populations of these fish species and to their wider conservation status. As the current level of accidental bycatch in nets is not known, or monitored across the area covered by the measures, this assumption cannot be tested directly through an assessment of any changes in bycatch levels.
- 9.2. The byelaw will replace a legacy byelaw. There is a high risk of non-compliance with the new byelaw from some of the affected vessels particularly in areas where the measures are more extensive than the byelaw which it replaces. Cornwall IFCA risk-based enforcement plan will take this into account and resources will be prioritised accordingly. There is still the potential for the introduction of inshore Vessel Monitoring Systems (iVMS) in the next few years which would enable more comprehensive monitoring of inshore fishing activity, if deployed to this class of vessel. If a national vessel monitoring system does not provide the detailed information required to address non-compliance within IFCA districts, alternative solutions may need to be adopted locally.
- 9.3. Cornwall IFCA does not operate a netting permit scheme so it does not have direct access to effort and landings data from affected vessels. Data has to be obtained from the MMO, currently through specific dataset requests although a data sharing agreement between both organisations should allow this type of information to be shared more routinely in time. Alternatively, Cornwall IFCA could seek to gather its own data on netting activity but this would require further measures to establish a mechanism, which itself would require further time and consultation.
- 9.4. The key assumption regarding the costs of this intervention has been to use the landings data submitted to the MMO for a range of key seafish species which are commonly caught within the areas subject to the restrictive measures. The value of the total landings was used, averaged over the most relevant, recent three year period (2017-2019), recognising that figures from 2020 will be atypical due to the effects of the covid-19 pandemic and EU-exit on fishing activity, fish exports and prices. As this landings data is gathered at the scale of ICES sub-rectangles, a proportion of total landings has been used to provide a proxy for the costs to businesses, using a multiplier to reflect the percentage of the coast (26%) directly affected by the measures in the byelaw.

10. Impact on small and micro businesses

- 10.1. The measures contained in the byelaw will impact exclusively on micro businesses (1-9 employees) as the class of vessels (under 8m) which fish within the prohibited and restricted areas would generally be operated by a skipper/owner, and possibly another crewman, with each vessel operating as a single business. It would not be possible to exempt them from the measures as it is the activities of these vessels that the byelaw is

seeking to manage. As a result, these businesses will bear a disproportionate burden in comparison to larger vessels within the wider fishery as only they will bear the costs of these measures. Due to their size and restricted range, many vessels will not be able to access alternative sources of income so these businesses could fail.

10.2. No mitigation measures have been identified which could reduce the impact on affected businesses.

11. Wider impacts (consider the impacts of your proposals)

11.1. Economic/financial impacts: The impacts of these proposals will be on a proportion of inshore netting vessels operating within the areas restricted within the byelaw, additional to areas which had been restricted by the previous Fixed Engines Byelaw. Additionally, vessels using drift or splash nets are now within the scope of this byelaw. For small netting vessels whose annual turnovers are dependant upon a high degree of flexibility between different fishing methods, the removal of a proportion of that income may result in the failures of those micro businesses. In ports where these vessels are concentrated, this can negatively impact on wider goods and services in the port and surrounding community, if alternative fishing activities cannot be found.

11.2. If the status of salmon and sea trout stocks in Cornwall improves, businesses involved with freshwater angling for these species should experience an increased demand for their services, with potential for wider positive financial impacts in the local community.

11.3. Social impacts: No social impacts are anticipated on local communities in terms of wellbeing, health, quality of life, rate of crime, skills and education, human rights or equality.

11.4. Environmental impacts: Improvements in the marine survival of salmon and sea trout should eventually be observed if reducing the risk of bycatch in surface nets in key locations around the coast has a tangible impact on their numbers. If there are a greater number of adults returning to spawn in Cornish rivers, this in turn will result in improvements to the spawning success of these fish, providing that other environmental constraints are also addressed, for example, water quality issues in specific catchments. These measures will not benefit salmonid stocks if individuals are subject to a lower risk accidental capture during their marine phase but still experience mortality in their freshwater phase.

11.5. A reduction in fixed and drift nets in specific areas may increase local availability of a range of species usually caught by these nets in these areas, providing their mortality does not occur elsewhere. If affected vessels switch from netting to potting, there will be increased pressure on crustacean stocks.

11.6. There are no anticipated impacts on water quality, air quality or on noise levels.

11.7. Marine Planning: This byelaw falls geographically within the scope of the South West Inshore Marine Plan which is itself prepared under the policy framework provided by the UK Marine Policy Statement and developed in accordance with the requirements set out in the Marine and Coastal Access Act 2009. It fulfils the South West Inshore Marine Plan Objectives 11, 12 and 13 and it meets the requirements of policies SW-FISH-3, SW-BIO-1, SW-BIO-2 and SW-DIST-1.

11.8. One In Three Out (OITO): OITO is not applicable for byelaws implemented for the management of sea fisheries resources within IFC Districts as they are local government

byelaws introducing local regulation and therefore not subject to central government processes.

12. A summary of the potential trade implications of measure

Not applicable to this proposed byelaw.

13. Monitoring and Evaluation

- 13.1. Monitoring of compliance with byelaw will be carried out as part of routine enforcement by Cornwall IFCA. Any incidents of accidental salmonid bycatch found will be recorded but the incidence is likely to be negligible.
- 13.2. Monitoring of the presence of salmon and sea trout using fish counters within key salmonid river is the responsibility of the Environment Agency and this data will be requested by the IFCA. There are currently no direct methods for assessing any change in salmonid populations as a result of the byelaw, or monitoring rates of accidental bycatch, so assessing the impact of the byelaw to achieve its objectives is very difficult as many other factors may affect the presence of salmonids within coastal waters.
- 13.3. Monitoring of the levels of netting activity and landings will continue via self-reporting by vessels to the MMO via the Catch App. This data should be made available to IFCA officers through a data sharing agreement between the two organisations.
- 13.4. IFCA byelaws are routinely reviewed every five years, or earlier if significant new evidence suggests that a review is urgently needed.

14. References

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