

Title: Devon and Severn IFCA Netting Permit Byelaw 2016 IA No: D&S IFCA 004a Lead department or agency: Devon and Severn Inshore Fisheries and Conservation Authority Other departments or agencies: MMO	Impact Assessment (IA)
	Date: 21 st September 2017
	Stage: Final
	Source of intervention: Domestic
	Type of measure: Secondary Legislation
	Contact for enquiries: M Mander Deputy Chief Officer, D&S IFCA m.mander@devonandsevernifca.gov.uk 01803 854648
Summary: Intervention and Options	RPC Opinion: Opinion Status: N/A

Cost of Preferred (or more likely) Option				
Total Net Present Value	Business Net Present Value	Net cost to business per year (EANDCB on 2016 prices)	In scope of One-In, Three-Out?	Business Impact Target Status
-£559,000.38	-£559,000.38	£58,219.1	No	n/a

What is the problem under consideration? Why is government intervention necessary?

Section 153 of Marine and Coastal Access Act 2009 (MaCAA) has defined the duties of the Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA). Current legislation including legacy byelaws, national and EU conservation measures are not considered sufficient to manage the recreational and commercial netting activity in the District. D&S IFCA believes that the local, regulatory approach to managing netting needs to be more flexible and adaptive to allow better harmonisation and integration with other conservation initiatives for sea fisheries resources whilst also helping to strengthen conservation for fish species.

What are the policy objectives and the intended effects?

1. To introduce a permit byelaw to manage all netting activity that is easy to understand, flexible in its approach, includes the ability to reflect future changes in national and European fish stock and habitat conservation initiatives and in doing so reduce future legislative burden to manage netting activity. This byelaw allows for the potential introduction of inshore vessel monitoring systems by changing the permit conditions via the review process stated in the byelaw.
2. To introduce two types of permits for netting activity to differentiate between the needs of the commercial and recreational netting interests whilst providing a mechanism by which stakeholders can actively influence the management of fisheries within the district.
3. To harmonise control measures with other D&S IFCA permit byelaws (e.g. minimum conservation reference sizes and bag limits) and where possible other control measures implemented by other IFC Authorities whilst also aiding public awareness about the activity of netting, identifying illegal netting activity and promoting individual responsibility.
4. To introduce a byelaw that meets potential future needs with particular reference to required management for marine protected areas (MPA) within the district.
5. To provide D&S IFCA with local netting effort data to both inform and improve future management decisions.
6. To meet requirements regarding sustainable management of local bass stocks as specified in the D&S IFCA Annual Plan 2016-17¹.

¹ <https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Misc/DSIFCA-Annual-Plan16-17.pdf>

7. To build on one of the 2011-2015 D&S IFCA's stated high level priorities to develop recreational sea angling opportunities in the district².

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

- 0. Do nothing.
- 1. Create a netting permit byelaw.
- 2. Review and remake byelaws using a traditional byelaw model.
- 3. To delay IFCA action and rely solely on management of the activity through a Statutory Instrument or Defra fishing licence.
- 4. Voluntary measures.

All options are compared to Option 0, the preferred option is Option 1.

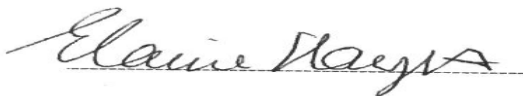
Will the policy be reviewed? Yes. If applicable, set review date: Permit conditions are to be reviewed no later than three years after the byelaw comes into force and the byelaw no later than five years after the byelaw comes into force.

Does implementation go beyond minimum EU requirements?			Yes		
Are any of these organisations in scope?	Micro Yes	< 20 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: N/A

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 Chair of the Authority

Date: 16/10/2017



² <https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Misc/DSIFCAAnnualPlan15-16.pdf>

Summary: Analysis & Evidence Policy Option 1

Description:

FULL ECONOMIC ASSESSMENT

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV) (£)		
			Low:	High:	Best Estimate:
2016	2016	10 ³			-559,000.38

COSTS (£)	Total Transition (Constant Price) Years	Average Annual (excluding transition) (Constant Price)	Total Cost (Present Value)
Low			
High			
Best Estimate	0	64,942	-559,000.4

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

This byelaw manages netting activity within the District both "at sea" and within estuaries. Although a number of estuaries are already closed under current byelaws, this byelaw will remove fixed and drift⁴ netting opportunities within all estuaries. The reduced access to stocks of bass and mullet represent a key monetised cost to commercial fishers. All responses⁵ (from all consultation periods) and landing data from the Marine Management Organisation (MMO) have been analysed to assess financial impact. No detailed information was provided to challenge the Authority's assumption that the financial importance (proportion of fisherman's household income from estuary netting) was low.

Calculations of costs used in the impact assessment calculator

Average value of mullet landings from nets in the district = £63,942
 Cost of permits (per year) = £1000 (100 permits each year at a cost of £20 for two years)
 Total = £64,942.

Average value of mullet landings from nets in the district:

2011-2015 = £63,942

2015 = £46,078.

Average income from netting in estuaries:

£1,000 to £5,000.

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

Closure of estuaries (and changes to estuary boundary definitions) to all forms of fixed and drift gill netting. The closure of all estuaries to netting would remove current limited netting for bass.

Catch restrictions relating to the retention of species on board vessels actively fishing within the

³ The standard timeframe for analysis is 10 years unless the situation requires a different amount of time for example the benefits will occur over a much longer period. If there is deviation from the standard 10 years this must be clearly explained in the main evidence section

⁴ As defined in the byelaw. Seine nets for the capture of sand eel will be permitted.

⁵ Economic data within the objection responses was limited to two separate individual responses.

district will potentially lead to a small number of commercial vessels having to change their fishing pattern to remain compliant with local management measures.

Persons fishing recreationally will need to adjust to having effort restrictions placed on their netting activities and will need to adjust to the catch and gear limitations.

There are potential non-monetised cost implications to some leisure fishers issued with category two permits.

The byelaw provides scope to introduce new technology such as inshore vessel monitoring systems; however this is not an immediate requirement and does not present a monetised cost at this time.

An explanation of non-monetised costs is provided in the evidence base.

BENEFITS (£m)	Total Transition (Constant Price) Years		Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low				
High				
Best Estimate	0		0	0

Description and scale of key monetised benefits by ‘main affected groups’

No monetised figures are available for the benefits of the recommended management approach.

Other key non-monetised benefits by ‘main affected groups’

- The introduction of the byelaw is a mechanism to balance the needs of persons engaged in exploitation of sea fisheries resources in the district. Although the netting permit byelaw is for the management and control of netting, there is an indirect relationship with other activities. It has been recognised in the making of this byelaw that fishing activities such as rod and line fishing on both a commercial and recreational level have significant economic importance.
- The Environment Agency (EA) submission highlighted the estimated value of the rod and line salmonid fisheries in key estuaries⁶ within the district. The proposed restriction of netting in estuaries and the maintenance of the existing restrictions along the coast should support the continuation and possible growth of this sector.
- The needs of other sectors have been recognised by D&S IFCA in the making of this byelaw.
- The byelaw is designed to meet D&S IFCA’s conservation responsibilities but at the same time minimising the socio-economic impact from these restrictions.
- The new byelaw better reflects the needs of the different sectors taking sea fish resources. The introduction of this byelaw offers flexibility in managing netting activity whilst clearly separating different user groups.
- Marking of gear (for all users) will be greatly improved.
- The byelaw allows for the potential use of new technology and more efficient use of enforcement resources.
- This byelaw would provide similar benefits to the existing permit byelaws in supporting one of D&S IFCA’s guiding principles to develop byelaws that tackle the problems of illegal, unreported and unregulated, fishing.
- Operating the permit scheme will give D&S IFCA far greater knowledge of the level of netting occurring and the amount of fish and shellfish being taken in the district to inform future

⁶ 13 sites were listed in the response by the EA with a total value of £40.67 million.

management.

- The tighter control on netting in estuaries will make illegal netting more readily identifiable to the general public, leading to better intelligence about the activity and reassurance that the observed netting is more likely to be legitimate and effectively managed.

Key assumptions/sensitivities/risks

Discount rate (%)

3.5

MMO landing figures represent the only accessible, district wide data set. There is a high probability that they do not reflect fully the landings for the commercial sector. Many of the vessels engaged in netting are from the under 10m sector where mandatory catch reporting is not required. Economic data is derived from records obtained through the Registration of Fish Buyers and Sellers and Designation of Fish Auction Sites Regulations 2005.

It has been assumed that all mullet catches are taken from estuaries. The MMO data captures landings data from the under-ten metre sector from the buyers and sellers databases⁷. The D&S IFCA acknowledge that private sales would not have been captured within these statistics.

Only two responses in the consultation provided data to indicate the level of catch and financial return that netting within estuaries provides them. One response included some landing/value data for the period 2000 to 2010 within the Salcombe estuary, although this submitted data can't be validated and therefore considered completely beyond dispute. The other response submitted data relating to catches taken from a fisherman working from the Taw Torridge area for a two month period. The information provided did not include a breakdown of the different fishing types and areas fished that had been used during the reported period. The information included private sales that would not have been captured within MMO landing statistics used in the impact assessment.

It is assumed that all mullet taken from nets have been caught within estuaries. Mullet are taken from areas outside of estuaries but this cannot be quantified.

It is assumed that the stocks of mullet are not at the same critical level as bass. However, being a slow growing species they are vulnerable to increased fishing effort that may arise from short to medium term restrictions on the bass fishery.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £:			In scope of OI30?	Measure qualifies as
Costs 58219.1	Benefits 0	Net -58219.1	No	N/A

⁷ The Registration of Fish Buyers and Sellers and Designation of Fish Auction Sites (Wales) Regulations 2006

Evidence base

1. Introduction

This impact assessment is for the Netting Permit Byelaw developed by Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA). This byelaw will affect all fishers using nets⁸ within the D&S IFCA district. The evidence base was established throughout the making of this byelaw. Initially an impact assessment was created for consultation and the evidence “tested” during the formal consultation phase. All findings and the process followed has been documented in a comprehensive report⁹.

The key management measures that would be introduced through permit conditions are:

- All netting activity¹⁰ to be authorised under permit;
- No netting in estuaries (other than seine nets targeting sand eels);
- Maintain current estuaries boundaries except for the Taw Torridge, Parrett and Axe (Somerset);
- Extend seawards boundaries for Taw Torridge, Parrett and Axe (Somerset);
- Maintain current fixed net coastal spatial restrictions;
- Maintain three metre headline clearance of coastal fixed nets;
- Remove derogation to use a surface fixed net between 91 and 93mm mesh size;
- Extend Lundy MCZ netting restrictions to include all nets;
- Restrict individual recreational netters to a maximum of 25 metres of net in coastal areas;
- Requirement to tag all recreational nets;
- Restrict recreational catches of crab, lobster, spiny lobster, and bass;
- Introduce a bycatch of crab claws for the commercial netting sector;
- Requirement for all permit holders to submit catch data;
- Potential to introduce vessel monitoring systems on board netting vessels.

2. Overview of European Marine Sites (EMS)/ Marine Conservation Zone (MCZ)

Environmental Impact

Netting Habitat Regulations Assessments (HRAs) were completed for all EMS in the Devon and Severn IFCA District. In Appropriate Assessments for the Severn Estuary EMS, Plymouth Sound and Estuaries Special Area of Conservation (SAC), Start Point to Plymouth Sound and Eddystone Site of Community Importance (SCI) and Lyme Bay and Torbay SCI, the proposed netting permit byelaw was included as a proposed mitigation tool to monitor levels of netting and in some cases to introduce specific measures to protect sensitive species which are part of the designated features. Natural England (NE) agreed that this was a suitable method of monitoring netting levels. NE also suggested the need for a shad bycatch reporting mechanism for the Severn Estuary and Plymouth Sound, via the netting permit byelaw.

HRAs for netting in the Severn Estuary were taken to an Appropriate Assessment because the initial test could not rule out a likely significant effect. The most contentious issues were for all forms of fixed nets and potential interactions with the fish assemblage (comprised of approximately 100 species including bass, mullet, salmon and sea trout), shad and river and sea

⁸ As defined in the Netting Permit Byelaw

⁹ Townsend N (2017) The D&S IFCA Netting Permit Byelaw – The final development report

¹⁰ Nets defined under Netting Permit Byelaw 2016.

lamprey and intertidal hard substrates (specifically intertidal *Sabellaria spinulosa* reef). Disturbance to birds through shore-based intertidal netting activities also required an Appropriate Assessment. The commercial netting effort in the Severn Estuary was deemed to be low, but because of the potential for interactions between nets and sensitive features, some form of mitigation was deemed appropriate. In the Appropriate Assessment for the species and habitats (named), with respect to the overall fish assemblage the following was stated:

“The introduction of a permitting byelaw for both commercial and recreational netting will allow a direct mechanism by which the IFCA will be able to monitor effort levels. If deemed necessary permit conditions within the byelaw can be included which introduce spatial restrictions to protect species if effort levels change in the future.”

And specifically regarding salmon:

“D&S IFCA has proposed to re-introduce the previous EA closed areas to netting in the Severn Estuary EMS and Somerset Coast as well as maintain the current no-netting area in the upper Severn, and extend this ban to drift nets. The draft byelaw also proposes closing the Parrett and Axe estuaries to all forms of netting. This byelaw is currently out to public consultation. “

In the Appropriate Assessment for fixed netting and shad in the Severn Estuary EMS the following was stated:

“The introduction of a permitting byelaw for both commercial and recreational netting will allow a direct mechanism by which the IFCA will be able to monitor effort levels. Devon and Severn IFCA will use the permitting approach to monitor levels of commercial net fishing in the Severn Estuary and if an increase in effort is detected, will discuss whether a new HRA is required. If deemed necessary, permit conditions within the byelaw can be included which introduce spatial restrictions to protect species if effort levels change in the future.”

“Netting restrictions in the Upper Severn Estuary where shad may be more likely to aggregate have been proposed within the new netting byelaw to be maintained and extended to include drift nets. Additionally, the byelaw proposes reintroducing closed areas around areas historically important for salmon which may offer additional benefits to shad, especially where those areas include freshwater inputs. The byelaw also proposes prohibiting netting in the Axe and Parrett Estuaries.”

Following informal advice from NE the following was also added to the final draft of the HRA:

“Finally, on the advice of NE, Devon and Severn IFCA will introduce a by-catch reporting mechanism for shad by commercial fixed-net fishermen and will undertake a shad awareness raising exercise which will involve developing and distributing information on the rules relating to shad and identification of the species.”

In Plymouth Sound and Estuaries SAC, interactions between various netting forms and shad were only taken to a Test of Likely Significant Effect (TLSE) level as the low level of activity and lack of reports of shad by-catch were thought to have a low level of impact. Whilst NE accepted the conclusions of the HRA, in its formal advice, NE stated that:

“We advise that effort levels of netting within the site are monitored into the future as we feel this potentially poses the biggest risk of shad bycatch. If netting levels increase above the low level currently suggested within the HRA, we feel that this should trigger a reassessment. Our

understanding is that your proposed netting permit bylaw will provide a suitable mechanism for you to adequately monitor the effort levels occurring within the site.

There is some uncertainty around the level of shad bycatch. Although it is thought to be very low, this is based in part on a lack of reports that it is occurring. We suggest there would be real benefit in introducing a shad bycatch reporting scheme in the site. This would allow bycatch to be better understood and should any future management be required, specifically targeted to the activities / locations / seasons where bycatch is occurring.”

However, Appropriate Assessments were required for netting on seagrass and reef habitats in Plymouth Sound and Estuaries SAC, and the proposed byelaw was suggested as a suitable mitigation method.

For the Start Point to Plymouth Sound and Eddystone SCI and the Lyme Bay and Torbay SCI, HRAs were completed for various forms of netting on reefs. For both sites Appropriate Assessments were required and the (at the time) proposed netting permit byelaw was included as a mitigation tool to monitor levels of netting. For both these sites the formal response from NE accepted the conclusions of the HRA as long as the netting permit byelaw was implemented:

“NE agrees that the planned D&S IFCA netting permitting bylaw will enable better monitoring of activity levels through the issuing of permits. We also understand that it will make provision for collection of more detailed information on activity levels should it be needed in the future. We would recommend confirming current activity levels when new information from the permitting byelaw is available.

It is NE’s view that if activity levels and distribution change from current levels, this should trigger a formal re-assessment of the impacts. Provided this is done, NE agrees that the permitting system allows for appropriate management (which could include limitations or spatial/temporal restrictions) to be introduced if required.”

Impact of nets on bass, salmon and sea trout

European sea bass (*Dicentrarchus labrax*) is an important fish species in Northwest Europe to both commercial fishermen and recreational anglers. Its biology, in particular its slow growth rate, temperature dependent recruitment and schooling behaviour at inshore and offshore sites, makes it a particularly vulnerable species to overfishing. Coupled with greatly increased market demand, the natural and anthropogenic pressures on European sea bass have led to a major decline in abundance, leaving stocks at a potentially critical level. Bass stocks are reported to be below the minimum acceptable (safe) limit and therefore at significant risk of non-recovery. The European Commission’s proposals for the management of bass during 2017 are that there should be no netting to target this species (including a complete ban on drift netting for bass – the technique currently allowed in some of D&S IFCA’s estuaries under byelaws). The D&S IFCA Byelaw and Permitting Sub-Committee takes the view that the increase in the minimum conservation reference size of bass to 42cm has already reduced availability of legal size bass within the estuary and continued access to estuary netting for mullet will promote discarding of bass, as mullet and bass stocks are impossible to target separately within the confines of an estuary. In addition, the Authority takes the view that in the past some fishers have targeted mullet as a means to continue to illegally take bass from estuaries.

D&S IFCA has commissioned a PhD student to assess the movement/migration of bass in local estuaries and coastal waters using a range of methods including tagging/isotopes analysis with the project also aiming to provide additional evidence on the levels of salmon and sea trout by-

catch from coastal fixed nets set at both three metres and five metres below the surface. It is envisaged that the PhD will help inform D&S IFCA's future management approach to netting.

The EA submitted their evidence highlighting the current state and importance of local salmon and sea trout stocks. The EA in their submission highlighted their concerns relating to the incidental bycatch of salmon and sea trout from nets set to catch sea fish¹¹. During the formal consultation the EA submitted an additional report focusing on the accidental capture of Salmon in the Taw Torridge estuary¹². This report (Risks posed to migratory salmonid fish species by sea fish netting in the Taw and Torridge estuary) is available upon request from D&S IFCA.

Additional evidence has been submitted by the EA relating to the Taw Torridge Estuary. This includes information relating to EA Officers' monitoring of salmonids being caught in nets and being returned to the water. The D&S IFCA Byelaw and Permitting Sub-Committee recognised that although salmonids were being returned to the water to achieve compliance with regulation there were potential negative impacts associated with the distress caused to the captured fish including, scale damage (abrasion from nets and handling) leading to the onset of fungal diseases and increasing the risk of mortality. The D&S IFCA Byelaw and Permitting Sub-Committee has taken the view that it would be impossible to allow estuary netting for mullet whilst achieving adequate protection for bass and migratory fish.

3. Rationale for government intervention

D&S IFCA have duties specified in the MaCAA and the implementation of this byelaw meets these requirements. D&S IFCA has identified the need to initially replace three of the existing byelaws with an overarching Netting Permit Byelaw. The current byelaws do not allow D&S IFCA to fully recognise and manage the interests and expectations of the wide range of stakeholders. Existing byelaws have resulted from an identified need to apply management measures to conserve stocks or habitat. Any benefit that these measures may have had to any of the different sectors was as an indirect consequence of the intervention rather than being a planned outcome.

Under section 153(2) (d) of MaCAA, D&S IFCA has a duty to seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.

Estuarine and coastal netting is currently controlled by a range of legislation including legacy byelaws, national and EU conservation measures, some of which are currently under review. D&S IFCA believes that the local, regulatory approach to managing netting in the district needs to be more flexible and adaptive to allow better harmonisation and integration with other conservation initiatives for sea fisheries resources whilst also helping to strengthen conservation initiatives for freshwater species.

The EA in their submission to the consultation highlighted their concerns relating to the bycatch of salmon and sea trout from netting activities targeting sea fish. D&S IFCA recognise that it has a duty under section 153(2) (b) to seek to balance the socio-economic benefits from exploiting sea fisheries resources with the need to protect salmon and sea trout.

Given these pressures on stock and the inability to fully recognise the different interests of a wide range of stakeholders, management intervention is required to redress market failure in the marine environment by implementing appropriate management measures (this Byelaw) to conserve stocks, features and to ensure negative externalities are reduced or suitably mitigated.

¹¹ Sumner K. (2015) Review of protection measures for Atlantic salmon and sea trout in inshore waters,

¹² Holland M and Toms S (2015) Risks posed to migratory salmonid fish species by sea fish netting in the Taw and Torridge estuary

Implementing this byelaw will support continued provision of public goods in the marine environment.

Fishing activities can potentially cause negative outcomes as a result of 'market failures'. These failures can be described as:

Public goods and services: A number of goods and services provided by the marine environment such as biological diversity are 'public goods' (no-one can be excluded from benefiting from them, but use of the goods does not diminish the goods being available to others). The characteristics of public goods, being available to all but belonging to no-one, mean that individuals do not necessarily have an incentive to voluntarily ensure the continued existence of these goods which can lead to under-protection/provision.

- D&S IFCA must seek to ensure that the exploitation of sea fisheries resources is carried out in a sustainable way.

Negative externalities: Negative externalities occur when the cost of damage to the marine environment is not fully borne by the users causing the damage. In many cases no monetary value is attached to the goods and services provided by the marine environment and this can lead to more damage occurring than would occur if the users had to pay the price of damage. Even for those marine harvestable goods that are traded (such as wild fish), market prices often do not reflect the full economic cost of the exploitation or of any damage caused to the environment by that exploitation.

- D&S IFCA must seek to balance the social and economic benefits of exploiting the sea fisheries resources of the district with the need to protect the marine environment from, or promote the recovery from, the effect of such exploitation.

Common goods: A number of goods and services provided by the marine environment such as populations of wild fish are 'common goods' (no-one can be excluded from benefiting from those goods however consumption of the goods *does* diminish that available to others). The characteristics of common goods (being available but belonging to no-one, and of a diminishing quantity), mean that individuals do not necessarily have an individual economic incentive to ensure the long term existence of these goods which can lead, in fisheries terms, to potential overfishing. Furthermore, it is in the interest of each individual to catch as much as possible as quickly as possible so that competitors do not take all the benefits. This can lead to an inefficient amount of effort and unsustainable exploitation.

- D&S IFCA must seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district.

In summary, the byelaw aims to redress these sources of market failure in the marine environment through the following:

- a. Management measures designed to conserve designated features of EMS and MCZ will ensure negative externalities are reduced or suitably mitigated.
- b. Management measures will support continued existence of public goods in the marine environment, by controlling the catch taken.
- c. Management measures will also support continued existence of common goods in the marine environment by reflecting the needs of the commercial and recreational sectors.

4. The problems you are trying to solve

Policy objectives and intended effect

IFCAs were established under the MaCAA to lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry.

The byelaw continues the process by which the Authority intends to replace all its inherited byelaws with activity based permit byelaws where possible. The introduction of the byelaw's permit conditions will enable D&S IFCA to flexibly manage fishing activity using a number of the measures summarised below;

- catch restrictions;
- gear restrictions and design;
- spatial restrictions;
- time restrictions.

The byelaw creates two categories of permits with differing management conditions designed to balance the needs of all users and to maintain a viable local commercial industry.

The byelaw creates a localised system of management by which those affected (permit holders) have an opportunity to participate in the continuing management decision making process. Permit holders will be contacted directly and provided with the information that underpins the proposed changes to permit conditions. Permit holders will be invited to comment on and suggest alternatives to the management proposals. This helps the permit holders to understand the reasons for the proposed changes and allows the permit holders to express their opinions and in turn D&S IFCA is better informed and improves its decision making. In future, D&S IFCA will be able to effectively collect relevant data to better inform its decision making through permit conditions. Continued engagement with stakeholders reduces the likelihood that emergency measures (byelaw/ Statutory Instrument) need to be used to manage unforeseen issues. All the local restrictions applicable to netting activity can be found in one document (the permit). Permit conditions can be more readily translated into plain 'English' helping the fisher to understand more easily fisheries legislation that is inherently complicated. The byelaw is designed to accommodate future management needs therefore reducing the cost associated with developing new legislation to react to emerging issues.

5. Background including sectors affected

Background

This byelaw will affect all fishers using nets¹³ within the D&S IFCA district. The Netting Permit Byelaw will apply to the whole of the D&S IFCA district.

Since 2011, D&S IFCA has been reviewing inherited byelaws. From 2013 to the present day, the Authority has developed a series of activity based permit based byelaws. The basic structure of each permit byelaw is similar with the main byelaw setting out the mechanics for management and the associated permits focussed on the specific management detail. Any changes in permit

¹³ As defined in the Netting Permit Byelaw

conditions would have to follow the procedure outlined in the body of the byelaw (under the section 'Review of Flexible Permit Requirements').

Affected sectors

A number of sectors will be affected by the introduction of this byelaw. Official objections were received to the byelaw. The Authority approved the circulation of a report – “Response and recommendation report for stakeholders” (22nd November 2016) to satisfy the requirement specified in the byelaw making guidance issued by Defra. This report is available upon request from D&S IFCA.

Netting Sector:

From MMO and D&S IFCA records it is believed that over 70 commercial fishing vessels may be netting in the district. The level of recreational netting is far more difficult to quantify as similar records are not available and is presently unquantified but is likely to be as high as 30 given the number of people undertaking recreational netting for sandeels in estuaries. The requirement to have a permit will start to remove the uncertainties in quantifying the levels of netting activity, thus better informing the decision making process.

Local economies and society including recreational sea angling:

D&S IFCA believes that through the various initiatives, including this Byelaw, it is demonstrating good practice in line with its duty to seek to balance the different needs of persons engaged in the exploitation of sea fisheries resources in the district¹⁴.

Bass is of great importance to recreational anglers throughout the south west of England. It is targeted from both the shore and private boats and is also an important species for the charter boats operating on the south and north coasts of the district. In 2012, D&S IFCA identified 73 angling charter boats operating out of ports on the south coast of Devon and 38 boats operating out of North Devon and the Severn Estuary. It is extremely difficult to quantify the importance of one species to recreational angling as a whole, but the existence of the extremely active and engaged organisation dedicated to the conservation of the species; Bass Anglers Sportfishing Society (BASS) goes some way to determining the importance of the fish to the recreational sector¹⁵. This organisation and supporters participated strongly during the formal consultation phase.

Both fishing and tourism are key sectors to the economy within the D&S IFCA district. Better management of local commercial and recreational netting can help to support local tourism. In this area there is an attraction and potential benefit for tourism associated with its connection to legitimate commercial fishing (including netting) conducted over generations. However, the activity of legitimate netting activities are often poorly understood by a wider audience and consequently netting activity is sometimes reported by the media in unnecessarily negative way. Public awareness of the importance of the netting sector and how it operates will improve through the introduction of the byelaw. The permit byelaw mechanism promotes engagement with stakeholders including those who apply for and subsequently are issued with permits to operate nets. Improving engagement is a key part of the D&S IFCA's communication strategy.

D&S IFCA have developed guiding principles for reviewing the management of different fishing activities. One such principle is to promote behavioural change. The inclusive mechanism offered

¹⁴ Section 153 (2) (d) of the Marine and Coastal Access Act 2009

¹⁵ <https://secure.toolkitfiles.co.uk/clients/15340/sitedata/Misc/DSIFCA-Annual-Plan16-17.pdf>

by the permitting byelaw model encourages stakeholders to participate in consultations that can influence decision making and ultimately conditions of use within each permit.

There is often conflict between those netting and those pursuing other activities such as recreational angling, many of which are visitors to the D&S IFCA district. The introduction of a flexible management system (this byelaw) coupled with continuation of voluntary measures (angling zones) will potentially reduce this conflict and possibly increase expectations and improve the experience for recreational anglers, therefore encouraging this element of tourism and associated spending.

Estuary netting

A number of small vessels will be affected financially by the proposal to remove all netting from the estuaries except for seine netting for sandeels; however it is not thought that the effect of the closure will result in any full-time fishers leaving the sector. Commercial responses in the consultation periods were not generally detailed enough to identify how important estuaries were in terms of the income that resulted from the netting activities. Responses from the commercial sector during the formal consultation did not add significantly to the financial evidence already established during the pre-consultation period. Analysis of MMO landing data, as far as could be determined, suggested that netting in estuaries did not represent a significant proportion of fishermen's income for most but importantly did provide some income at times when access to the main grounds outside of estuaries were denied due to adverse weather. Concerns were raised over health and safety which is beyond the remit of the Authority. Commercial fishers believed that their impact on the stocks and environment were minimal and did not justify the complete closure of estuaries to netting. It has been recognised that some netters that work on a part-time basis, that have a smaller income from fishing may leave the sector. Full-time fishers have to compete with part-time fishers that only operate during the peak times and see fishing as a supplement to their income.

The greater significance is likely to be a social impact resulting from the loss of a netting fishery that has been undertaken for many generations on both the north and south coasts of the district. Fishermen have suggested ways to limit the amount of netting in estuaries similar to those set out in the Officers' report to the Sub-committee in November 2015. Minutes of the November 2015 sub-committee meeting record that members rejected the proposals to have limited access to netting in estuaries.

Responses from the recreational sea anglers would indicate that this sector would recognise the closure of estuaries to netting for sea fish as a significant step towards recognising and balancing their needs and interests with other sectors.

Boundary Change

Taw Torridge

During the development of this byelaw a boundary line for this estuary has been explained and demonstrated in chart form throughout the consultation phases. This boundary line would clearly separate areas between an estuary and the open sea. A boundary line is required as control measures are different within estuaries and coastal areas. The extension of the Taw/Torridge boundary will impact upon several commercial netters, however only four commercial fishermen responded to the pre-consultation. The level of income reported by the four commercial fishers in the Taw/Torridge ranged between £1000 and £5000. D&S IFCA is aware that up to twelve commercial fishermen occasionally operate drift nets within the sheltered confines of this estuary,

but the manner in which they are currently worked is of particular concern. The nets are fished in such a way that they could easily fish as fixed nets with only small changes to the operation.

Observations of the nets by officers recorded a number of salmon being captured and returned to the water. The EA submitted evidence within the consultation in regard to the accidental capture (and release) of salmonids with the Taw Torridge estuary¹⁶.

Netting for sea fish in the estuary is not a long established activity. The focus on sea fish netting has increased significantly following the buying out the rights of many of the previously licensed salmon netsmen. The available landing data indicates that the bass fishery is far more important, in relative terms, than the mullet fishery. Regardless of the implementation of this byelaw, it is likely that the minimum conservation reference size increase in bass will reduce significantly the amount of bass that is available to all fishers including netsmen.

Responses from the commercial sector during the formal consultation did not add significantly to the financial evidence already established during the pre-consultation period. Concerns were again raised over health and safety. Objections and points of concern raised during the formal consultation and decisions taken by D&S IFCA in regard to those suggestions have been documented in the minutes of meetings, in the “Response and recommendations report for stakeholders” (22nd November 2016) and also “Access for netting within estuaries and the decision making process” report (February 2017).

Other estuaries

The River Axe (Somerset) and River Parrett were referred to during the pre-consultation. Although the principle of adding further restrictions within these estuaries received positive feedback from recreational anglers, the proposed boundary lines were viewed by netsmen as being excessive. Recommendations in regard to boundary change have been documented in the minutes of meetings, the “Response and recommendations report for stakeholders” (22nd November 2016) and also “Access for netting within estuaries and the decision making process” report (February 2017).

Stock management

Bass

MMO landing figures for bass would indicate that, with only a few possible exceptions¹⁷ commercial fishing vessels landing to designated ports within the Authority’s district would not have got close to, let alone exceeded the 2016 monthly catch restrictions during the previous year, suggesting that this Northwest Atlantic wide measure will not have much effect locally.

MMO landing figures also indicate that most of the bass landed in the district is taken as a bycatch in a mixed fishery and not a directed fishery. This would indicate that it is more difficult to restrict commercial catches of bass taken in the district. This difficulty is reflected in the fact that the European measures when applying a commercial moratorium on the landing of bass during February and March allowed demersal towed gears and seine net fisheries to land bass up to 1% of the overall catch taken. It is believed that estuaries do have larger aggregations of bass and in these areas the stock does become a targeted fishery. The proposal to remove all netting activities in the estuaries would reduce the amount of bass that can be taken by the commercial sector and

¹⁶ ¹⁶ Holland M and Toms S (2015) Risks posed to migratory salmonid fish species by sea fish netting in the Taw and Torridge estuary

¹⁷ Analysis of MMO data identified one vessel in Plymouth exceeded the proposed 1.3 tonnes limit in one month during 2015. Not all ports as yet analysed but Plymouth represented the largest landings of bass in the District.

supporting the recovery of this species from over fishing. In addition the byelaw will help to balance the local restrictions placed on the commercial and recreational sectors, with many of the latter believing that they have been disproportionately affected by the latest European Commission bass management measures.

Grey Mullet

The Bass Nursery Area designations remove the opportunity to fish for bass from boats in all of the main estuaries for most of the year if not all of it. From 1st April to at least the end of October, depending on the location, the only targeted commercial fishery is for grey mullet and possibly gilthead bream. The value of the commercial catch of mullet for the whole district in 2015 amounted to £46,078. The MMO landing data shows the value of this catch from ports in the district. It has been assumed that catches have been derived from fishing within estuaries.

Responses to the questionnaire¹⁸ highlight that the level of netting in Salcombe and the Rivers Dart and Avon have been less in the past two years as a result of the Duchy of Cornwall reviewing the management in netting in these areas where the Duchy's private rights to fishery exist. Local Salcombe netsmen have also reduced netting activity following a netting investigation that questioned the local drift net methodology with the Authority believing the method to be a form of fixed netting. Local netsmen also refrained from netting so that they were not associated with the well-publicised illegal fraternity.

Mullet is similar to bass in that it is a slow growing species and this characteristic coupled with its overall reproductive strategy makes the species vulnerable to overfishing. Stock data is not so readily available for this species but there is strong anecdotal evidence to suggest that mullet stocks have declined and continue to decline. Grey mullet is increasingly being promoted as an alternative to bass and with the reduced access to bass stocks it may be targeted more in the future. Overall the Authority's precautionary approach to closure of estuaries to netting is prudent in relation to this species. Mullet is a prized species among a specialist group of the recreational sector and the relative difficulty in catching the species on rod and line makes it less attractive than bass to the general angler. Nevertheless, mullet is recognised as an important species among anglers and is one of the key fin fish species that characterise the estuaries in the district. During the process the D&S IFCA has determined that it is impossible to target mullet independently from bass with estuaries.

Salmon and Sea Trout

These species are recognised for their conservation status and socio-economic importance particularly to the recreational sector. In 2016, D&S IFCA along with Cornwall IFCA sought Counsel's opinion on the extent of the IFCA's responsibility for salmon and sea trout. The advice indicated that IFCA's have a responsibility to consider the conservation of salmon and sea trout when making the Netting Byelaw but do not have a duty to consider the economic importance of salmon and sea trout.

As set out in the review of the EA data, whilst acknowledging the importance of the recreational value of the species, the Authority's focus lies in assessing how its management of finfish may support the protection afforded to the species.

The data suggests that with the exception of Salcombe Harbour, all the bodies of water referred to in this and previous documents as estuaries are identified as important salmon and sea trout

¹⁸ Survey Monkey questionnaires used in pre-consultation periods for the Netting Permit Byelaw.

rivers. The capture of salmon and sea trout is as an accidental bycatch as it is illegal for most vessels to sell wild caught fish. Only a limited number of licensed salmon and sea trout fishermen are authorised to land fish and gill tags, issued by the EA, must be attached to each individual fish offered for sale.

The numbers of salmon and sea trout caught in nets within estuaries is not known but monitoring of the netting activity in the Taw/Torrige estuary did reveal that a number of salmon and sea trout were caught and returned to the water. The relative confines of estuaries would suggest that similar methods of netting in other rivers may also pose a similar risk to that observed on the Taw Torrige. The EA submitted additional evidence within the formal consultation in regard to the accidental capture (and release) of salmonids.

Coastal netting

D&S IFCA has reviewed the available evidence relating to coastal fixed net fisheries. D&S IFCA believes that it would be taking a precautionary approach to management by retaining the current levels of restrictions whilst allowing for appropriate future additional restrictions via the use of a flexible byelaw mechanism. In addition, on the North coast D&S IFCA propose to reintroduce the fixed net restrictions that were previously in place for the Somerset coastline. The Wessex region netting byelaws were not automatically transferred to D&S IFCA. The EA had the expectation that these restrictions would be reintroduced when D&S IFCA reviewed its approach to netting in the district and therefore these provisions have been incorporated into the permits for the D&S IFCA Netting Permit Byelaw. The byelaw will initially maintain the current three metres headline restriction in coastal areas. By maintaining the majority of current coastal restrictions no financial loss will result.

Currently the coastal netting restrictions do allow, under derogation, the use of a small amount of surface net during the year in the three metre headline requirement areas. Numbers of issued derogations have fallen in recent years to low levels¹⁹. The increase in the minimum conservation reference size of bass to 42cm and the effectiveness of the current mesh (91mm to 93mm) in the surface net derogation at catching bass below this new minimum size is an important point to consider. This derogation is no longer seen as appropriate in that it potential creates an unnecessary bycatch of undersize bass. The Netting Permit Byelaw removes the derogation for the use of a small amount of surface net during the year in the three metres headline requirement areas.

Netting around Lundy

The Byelaw will extend the existing restrictions on tangle nets and fixed gill nets to all nets in the area set out in the existing Byelaw 14 – Trawling and Netting Prohibition – Lundy Island Marine Conservation Zone (MCZ). D&S IFCA are not aware that any nets are currently lawfully set in this area.

Recreational netting

The Authority believes that the separation of different users (and appropriate restrictions for different groups) is not discriminatory; instead it is a justified approach to secure the correct balance for different fishery users. D&S IFCA has taken the view that a recreational catch restriction to mirror the Potting Permit Byelaw and the Diving Permit Byelaw. The Netting Permit Byelaw will also incorporate a bag limit for bass to reflect EU bass regulations with the effect that

¹⁹ Five individuals (6 vessels) were derogated to use fixed surface nets for bass (91-93mm mesh) in 2015.

the measures will be directly enforceable via the byelaw. The protection of local bass stocks forms part of the rationale in regard to the introduction of this byelaw. It is possible that if EU measures for recreational fishers are relaxed in the future, it may still be appropriate to maintain local restrictions that can only be the same or more restrictive.

A number of the responses during the consultation periods questioned whether any recreational netting should be allowed. D&S IFCA has concerns that some recreational netmen, particularly on the south coast, are using significant amounts of nets and catching far more fish than can be reasonably be utilised for personal consumption. The review of netting has identified an intertidal stake net fishery that is predominantly undertaken by recreational fishers. Recreational fishers from Uphill reported that they use small boats to set up to normally 200m of net each in areas to the north of Brean Down, Somerset. This area overlaps the Burnham, Berrow and Brean Angling Zone.

D&S IFCA believes that netting as a recreational activity should continue but on a proportionately restricted basis. This would allow recreational users to catch sandeels for bait in estuaries and set up to 25 metres of net to catch fish and shellfish for their own consumption. In line with the Potting Permit Byelaw and Diving Permit Byelaw restrictions, recreational netters are not permitted to use store pots and must land the catch on the day of capture. This measure helps significantly with the Authority's ability to enforce the daily catch restrictions.

Bycatch of crab

The provision for a bycatch of crab is within the permit conditions. From the consultations there was not overwhelming support for the introduction of a bycatch of crab claws from the commercial sector. Those supporting the bycatch proposals highlighted that by having no allowance it was a potential waste of a resource. A weight limit was seen as preferable to a maximum number of claws. Suggested levels ranged between 30kg and 60kg per trip to an unlimited weight. Cornwall IFCA have a 30kg allowance whilst European measures apply either a maximum 1% bycatch by weight of the total weight landed from pots and 75kgs from other fishing methods. D&S IFCA and some fishermen have identified the risk that by relaxing D&S IFCA's current byelaw restriction, where no crab claws can be landed, it may lead to some fishermen retaining as much crab claw as permitted or removing claws from undersize crab rather than trying to remove entire crab that can be legally landed above the minimum conservation reference size. The permit conditions will introduce a bycatch of a maximum of 30kg per commercial permit holder per calendar day. D&S IFCA believes that it is necessary to introduce the measure at a level to reflect in part the concerns raised by some commercial fishermen. The fishery will be monitored for any unintended consequences and to only allow the retention on board of crab claws where netting has been the only activity whilst fishing in the district. It may also be necessary to consider placing a minimum number of claws per kilo to counter the risk that smaller claws from undersize crab are retained.

Catch restrictions

The use of catch restrictions within the permits will potentially affect persons that fish both inside and outside the district. It is assumed that the extent of netting activity inside and outside of the district will be similar to that of potting as it is likely to be carried out, in the most part, by the same vessels. Previous discussions with representatives of the commercial potting fleet in north and south Devon would indicate that the number of vessels affected by these conditions of use is likely to be low. Recognising that some vessels do fish inside and outside of the district on the same fishing trip, the catch restriction does not prevent the carriage of the catch caught offshore through the district. The permit condition, (paragraph 1.1) sets out that 'A permit holder or named representative is not authorised to fish under this permit if he has retained on board or has in his

possession any catch that does not comply with any of the catch restrictions set out in paragraphs 1.2 to 1.6.3 inclusive’.

For example, this still allows fishermen to net inside the district and then outside the district and retain on board berried lobster if they then transit through the district to land. However, if a vessel nets outside of the district and catches berried lobsters and is then inspected whilst fishing within the district the retention of those berried lobsters will contravene the permit conditions. Byelaws only apply within the district, normally six nautical miles from the coast or in places on the north coast of the D&S IFCA district to the median line with Wales. The permit condition goes a significant way to addressing the potential enforcement weakness of proving where vessels have been fishing and where catch has been taken from.

The commercial (with no shellfish entitlement) and recreational catch limits proposed harmonise with the restrictions already in place through the Diving Permit Byelaw, Potting Permit Byelaw and EU bass regulations. Nationally, commercial vessels using pots or nets, that do not have shellfish entitlements are restricted to a maximum of five lobsters and 25 crabs per calendar day. The same restrictions, five lobsters and 25 crabs per calendar day will apply through the permit conditions to this sector of the commercial potting and netting fleet. The additional benefit of this approach is that this catch limit for these commercial vessels is directly enforceable by the Authority’s enforcement officers. The Byelaw restricts the daily catch of recreational netters to two lobsters and three crabs and one bass (from 1st July to reflect EU regulations) per calendar day per person. The permit conditions can be amended via the review process to reflect the restrictions applied through EU Regulations.

Spiny lobsters are a Feature of Conservation Importance in designated MCZs within the D&S IFCA district. The total number of MCZ has increased to three to include Bideford to Foreland Point MCZ. The number of spiny lobsters reported caught in the Lundy MCZ and the Skerries and Surrounds MCZ by commercial potters is very low. Although the commercial value of spiny lobsters is high, ranging between £40 and £60 per lobster, the numbers caught would suggest that by prohibiting the removal of spiny lobsters from these two areas it is likely to cost the whole fleet around £1,500. The low capture rates are likely to be indicative of very low populations in the two MCZs so the removal of only a few individuals may have a significant impact on the stock. D&S IFCA believes that this warrants a precautionary approach. The removal of spiny lobsters from all three MCZ sites will be prohibited. A minimum conservation reference size (MCRS) has been introduced for spiny lobsters within other permitting byelaws and this represents an increase from 95mm to 110mm carapace length. This MCRS harmonizes with Cornwall IFCA’s current restriction.

D&S IFCA agreed that soft spiny lobster should be afforded the same protection as edible brown crab and lobster and the permits (catch restrictions) be amended to reflect what has now been considered to be an unfortunate oversight when the initial protection measures were formulated.

Gear restrictions

Surface markers, buoys or dhans, attached to netting gear, need to be marked with either the commercial vessel’s Port Letters and Numbers (PLN) or the permit number. This will assist greatly in monitoring of fishing activity and help identify persons responsible for the gear and determining what gear is being used.

In the case of recreational gear, the use of tags will enable the restriction on nets to be enforced more easily. In the first instance tags will be issued at no cost to the permit holder. Lost or stolen tags can be replaced at a cost of £2 per tag but this cost would be borne by the permit holder.

There is no initial requirement for commercial coastal nets to be marked with tags. There is now no provision to allow for the use of limited surface fixed nets (in specified coastal areas). Within estuaries all seine nets must have a tag fitted.

Enforcement bodies

The lead responsibility for enforcing any permit conditions would fall to D&S IFCA and therefore the additional enforcement cost would impact on D&S IFCA. The Authority recognises that it has a duty to ensure that the legislation it introduces is enforceable and administration of the permits resourced. The Authority operates a risk based approach to enforcement. The byelaw and permit conditions are designed (including the introduction of catch restrictions when fishing in the district), in part, to make enforcement of the management measures more effective.

Permits

Although D&S IFCA has the ability to restrict the number of permits issued this is not the policy adopted by the Authority. The number of permits issued will be unlimited. Fishing effort management by way of licences is already undertaken at a national level. Local restricted licencing or permit schemes (such as those used by other IFCA's) can bring additional benefits to those fishers within the scheme, such as greater access to stock, limited competition from other fishers, an increased sense of ownership and reward for adopting good fishing practices. Many contributors²⁰ to the fisheries management debate support the use of such an approach. However among the many risks it is highly likely that a restrictive permit scheme becomes a valuable, tradeable document (even when every action is taken to prevent this from happening), it limits opportunity for new entrants to the fishery and may lead to increased effort as fishers believe that a track record of fishing may qualify them for a permit in the first instance. A restrictive scheme would also significantly increase the administrative burden on D&S IFCA. The current budget and staff resource would not be able to deliver this approach within existing or foreseeable resources.

The cost of the permit will be £20 and will be valid for a maximum of 24 months. The cost of the permit is set out in the Byelaw and can only change when the Byelaw is reviewed. The charge is based solely upon the estimated administrative cost in terms of staff hours and is not an attempt at full cost recovery which may be more appropriate for a heavily monitored fishery. Inevitably this means that the same hours are incurred irrespective of whether the applicant is a commercial or recreational user. However, to reflect the requirement for recreational fishers to attach tags to their nets and some commercial fixed nets, the initial charge for tags will be met by D&S IFCA.

D&S IFCA believes that a charge of £20 for permit where the conditions of use may be varied without cost to the permit holders during that period, does not impose an excessive financial or regulatory burden upon any of its stakeholders. In addition, even for recreational netters, the value of the fish and shellfish (maximum amount) that can be removed in one day and consumed (rather than purchase from another source) would easily exceed the cost of the permit.

6. Options including the preferred option

In determining the most appropriate form of management following the better Regulation Principles²¹ D&S IFCA must consider voluntary measures before proceeding with a statutory measure such as a byelaw²².

²⁰http://www.seafish.org/media/921067/2013.07.23_project_inshore_s2_v5.pdf

²¹ [Link to BRPs https://www.gov.uk/government/publications/better-regulation-framework-manual](https://www.gov.uk/government/publications/better-regulation-framework-manual)

²² This is only the case if voluntary measures are cheaper than other options. A full description of the voluntary measures envisaged and how effective these will be in terms of risk mitigation.

0. Do nothing: this option was considered inappropriate. D&S IFCA is required to review the byelaws that it inherited. Byelaws apply to all persons and as such represent the best legislative tool to manage netting activities.
1. Create a netting permit byelaw introducing a flexible, adaptive approach to the management of all netting within the district whilst also providing a more cost effective option than other options.
2. Review and remake byelaws using a traditional byelaw model leading to the creation of rigid byelaws which are unsuited to dealing with future management needs whilst also producing significant costs involved with both their initial creation and potential amendment or remaking.
3. To delay IFCA action and rely solely on management of the activity through Statutory Instruments or Defra fishing licence. This approach was considered too rigid in its approach and insufficient for locally focussed management. This option would result in D&S IFCA not meeting its vision, Annual Plan commitments or its duties under s153 MaCAA.
4. Voluntary measures: due to the number of fishers affected by the management proposals it is unlikely that there will be sufficient voluntary compliance with the restrictive measures necessary to achieve the outcomes required by D&S IFCA.

All options are compared to Option 0; the preferred option is Option 1.

Recommended option – Option 1 A D&S IFCA ‘Netting Permit Byelaw’.

The recommended option reflects D&S IFCA’s aim to introduce a new approach to inshore fisheries and conservation management. The permitting byelaw will encourage active participation in management decisions. This option is recommended because D&S IFCA is viewed as the appropriate statutory organisation to lead on the sustainable management of inshore fisheries and protection of the marine environment. A permitting byelaw is the preferred approach due to the flexibility associated with permit conditions. There is also the potential for further measures to be introduced, or existing management to be amended or removed. This option mitigates the risk of imposing inappropriate permanent restrictions based on the limitations of available evidence. Management is required for the reasons set out in the Impact Assessment but care should be taken to ensure decisions are amendable in light of better evidence or changing circumstances in an appropriate timeframe. The ability to change management requirements through varying permit conditions is likely to be less expensive than creating separate voluntary agreements. Where voluntary agreements are created by other initiatives D&S IFCA has the ability to support the management approach by introducing permit conditions if required.

7. Cost and benefits (Analysis of costs and benefits)

The analysis of costs and benefits is based on comparing Option 1 to Option 0.

Description and scale of key monetised costs by “main affected groups”

Calculations of costs used in the impact assessment calculator

Average value of mullet landings from nets in the district = £63,942

Cost of 100 permits (per year) = £1000

Total = £64,942

It has been assumed that all mullet catches are taken from estuaries. The MMO data captures landings data from the under-ten metre sector from the buyers and sellers databases²³. The D&S IFCA acknowledge that private sales would not have been captured within these statistics.

Average value of mullet landings from nets in the district:

2011-2015 = £63,942

2015 = £46,078

Average income from netting in estuaries:

£1,000 to £5,000.

The proposed permitting byelaw would require all persons that use nets to operate under a permit issued by D&S IFCA. The biennial cost of a permit is set at £20. The cost of the permit is to cover estimated administration costs incurred by D&S IFCA. This does not cover the cost to D&S IFCA from resourcing the continual review of permit conditions. **The numbers of fishers that will be issued with a permit is unknown, although it has been estimated that** that over 70 commercial fishing vessels may be netting in the district. The level of recreational netting is far more difficult to quantify as similar records are not available and is presently unquantified but is likely to be as high as 30 given the number of people undertaking recreational netting for sandeels in estuaries. The requirement to have a permit will start to remove the uncertainties in quantifying the levels of netting activity, thus better informing the decision making process.

D&S IFCA are looking to introduce better ways of monitoring and control and believe that remotely accessed monitoring devices will play a key part in the future. Although not required initially, the byelaw has the ability to require netting vessels to fit a remotely accessed monitoring device. Purchasing of units and installation of units is likely to be approximately £1,000 with additional average airtime cost of between £150 and £200 per annum. Funding for the installation and purchase of the required units should be secured leaving the permit holder to finance the ongoing maintenance and annual airtime costs.

D&S IFCA operates a risk based approach to enforcement. Illegal netting in estuaries is identified as a high risk activity by D&S IFCA and as such a significant part of the enforcement budget is used to counter this risk. The introduction of restrictions on the recreational netting sector will require additional enforcement effort. However, no additional resource is available to meet this requirement. Operating on a fixed budget D&S IFCA will continue its risk based approach to enforcement and consequently focus on other fishing activities may be reduced to meet the required monitoring of the byelaw.

Other key non-monetised costs by “main affected groups”

Closure of estuaries (and changes to estuary boundary definitions) to all forms of fixed and drift gill netting would (for some stakeholders) represent a negative impact in terms of historical, traditional and social cost. Social impact is explained in more detail in the evidence base.

The closure of all estuaries to netting would remove current limited netting for bass. The opportunity to net for bass is already restricted by national and European legislation. The vast majority of estuaries are designated under the Bass (Specified Areas) (Prohibition of Fishing) Order 1990 (as amended)²⁴

²³

http://resources.anglingresearch.org.uk/sites/resources.anglingresearch.org.uk/files/Economic_Impact_Sea_Angling_England_Drew_Report_2004.pdf

²⁴ <http://www.legislation.gov.uk/ukSI/1990/1156/made/data.pdf>

prohibiting netting for bass for all or part of the year. In 2015, the increase in the MCRS for bass to 42cms²⁵ also reduced significantly the proportion of the bass available in estuaries that could be legally landed therefore already reducing the income that could be derived from fishing for this species in estuaries. Officers recorded complaints from Plymouth based estuary netters that the increase in MCRS would reduce their legal catch of bass by around 80%.

Catch restrictions relating to the retention of species on board vessels actively fishing within the district will potentially lead to a small number of commercial vessels having to change their fishing pattern to remain compliant with local management measures.

Persons fishing recreationally will need to adjust to having effort restrictions placed on their netting activities and will need to adjust to the catch and gear limitations.

With the D&S IFCA following an activity based permit byelaw strategy, there will be some stakeholders operating with more than one permit. This has potential non-monetised cost implications to some leisure fishers. The conditions of use restrict the catch for these category two permit holders. In addition, if these fishers are operating under the authorisation of more than one permit issued by D&S IFCA then the total number of crab and lobster that can be removed in any calendar day cannot exceed the permissible level offered by a single permit.

The introduction of the byelaw is a mechanism to balance the needs of persons engaged in exploitation of sea fisheries resources in the district. Although the netting permit byelaw is for the management and control of netting, there is an indirect relationship with other activities. Fishing activities such as rod and line fishing on both a commercial and recreational level have significant economic importance.

Angling 2012²⁶, commissioned by Defra and published in 2013 built on findings from other reports that Recreational Sea Angling was a key economic sector involved in the exploitation of sea fisheries resources. D&S IFCA's district is a key location for both local and visiting anglers. The development of RSA opportunities created by the removal of netting in estuaries may lead to an increase in the RSA economic value of each estuary.

The Drew Report²⁷ commissioned by Defra, published in July 2004, estimated that the direct spend by sea anglers in England and Wales was £538 million. Invest in Fish South West Report²⁸ by Nautilus Consultants used data from the Drew Report to estimate that the direct expenditure in the South West, was £165 million.

Angling 2012, estimated that the direct spend by sea anglers in England was £831million. It is possible, that in the South West, that a conservative estimation of sea anglers spend in 2012 was £249 million²⁹.

The EA submission highlighted the estimated value of the rod and line salmonid fisheries in key estuaries³⁰ within the district. The proposed restriction of netting in estuaries and the maintenance of

²⁵ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:JOL_2015_203_R_0006

²⁶ <http://webarchive.nationalarchives.gov.uk/20140305120543/http://www.marinemanagement.org.uk/seaangling/documents/finalreport.pdf>

²⁷

http://resources.anglingresearch.org.uk/sites/resources.anglingresearch.org.uk/files/Economic_Impact_Sea_Angling_England_Drew_Report_2004.pdf

²⁸

http://resources.anglingresearch.org.uk/sites/resources.anglingresearch.org.uk/files/The_Motivation,_Demographics_&_Views_of_SW_Recreational_Sea_Anglers.pdf

²⁹ This figure was estimated from the above figures, not from the report, the rationale is that the Invest in Fish figure is approximately 30% of the total spend in 2004 Drew (England and Wales) and £249 million is 30% of the Sea Angling 2012 figure for England only.

³⁰ 13 sites were listed in the response by the EA with a total value of £40.67 million.

the existing restrictions along the coast should support the continuation and possible growth of this sector.

The needs of other sectors have been recognised by D&S IFCA in the making of this byelaw.

The byelaw is designed to meet D&S IFCA's conservation responsibilities but at the same time minimising the socio-economic impact from these restrictions

The new byelaw better reflects the needs of the different sectors taking sea fish resources.

The needs of other sectors have been recognised by D&S IFCA and it has implemented change. This byelaw builds on voluntary initiatives (Angling Zones) helping to reduce previous conflict between netting and angling interests. Pre-consultation has indicated that netting (coastal and within estuaries) is cited as a negative factor on the catching expectations of many leisure anglers. In addition, stakeholders and members of the general public have indicated that estuaries and in particular 'bass nursery areas', should be afforded additional protection from netting activity.

The byelaw is designed to meet D&S IFCA's conservation responsibilities but at the same time minimising the socio-economic impact from these restrictions. By the end of 2016, D&S IFCA was required to have identified the management framework to control the impact of all fishing activities undertaken within EMS. The same byelaw mechanism can be used to ensure that necessary management interventions can be taken for the protection of MCZ in the district. The byelaw also provides the flexibility to manage fishing activities in a timely, effective way and provides the framework to consider developing new fisheries. The approach removes the need for further byelaws to deal with netting management and as such delivers significant saving to the public purse.

The use of the data available from vessel monitoring systems in the towed gear fleet has resulted in more effective and efficient use of enforcement resources. The potential use of similar technology to manage the netting fleet should result in similar benefits.

The new byelaw better reflects the needs of the different sectors taking sea fish resources by limiting the level of effort and the amount of fish and shellfish that can be taken from the non-commercial sector. The byelaw also allows for commercial effort to be restricted in a similar way. Reducing the competition from other sources will help to support the local fisheries retail economy in the district. This byelaw would provide similar benefits to the existing permit byelaws in supporting one of D&S IFCA's guiding principles to develop byelaws that tackle the problems of illegal, unreported and unregulated, fishing. This issue is also a national priority for the MMO.

At the same time the D&S IFCA believes that the gear and catch limits on the non-commercial sector are entirely reasonable and proportional to personal consumption and that both sectors will benefit from the improved sustainability of fish and shellfish stock brought about by this byelaw.

Different groups of stakeholders raise different management challenges. The introduction of this byelaw offers flexibility in managing netting activity whilst clearly separating different user groups. Treating these groups differently is not adverse discrimination; rather it reflects the different management challenges presented by the different sectors. This byelaw therefore provides appropriate fishing opportunities rather than adopting an overly precautionary approach and excluding one specific sector.

Operating the permit scheme will give D&S IFCA far greater knowledge of the level of netting occurring and the amount of fish and shellfish being taken in the district to inform future management.

The permit schemes will also allow D&S IFCA to communicate directly with users to increase understanding and awareness of the management and allow permit holders to actively participate in shaping future management. This reflects strongly the Government's Localism agenda by encouraging local people to participate in the decision making process and helping to empower local communities.

Marking of gear (for all users) will be greatly improved, allowing better monitoring of netting effort. It helps to ensure that commercial and recreational netting effort is effectively managed. It can help prevent the tampering with or unauthorised use of other persons' gear and assist D&S IFCA and its stakeholders to identify legitimate activities. It can be part of the communication strategy to improve the understanding of the seasonality and scale of netting reducing the negativity surrounding netting that is derived from the public's preconceptions about the activity.

The tighter control on netting in estuaries will make illegal netting more readily identifiable to the general public, leading to better intelligence about the activity and reassurance that the observed netting is more likely to be legitimate and effectively managed.

The Authority accepts that precise data is not available for all aspects of the proposed management covered by the Byelaw (Permit conditions) and in such circumstances the Authority has proceeded on the best available evidence and, as required to do so, has applied the precautionary principle where data is unavailable. The Authority is entitled to proceed upon this evidentiary and precautionary basis. The Byelaw provides the opportunity to introduce a mechanism to gather more precise evidence to inform future management decisions by requiring all permit holders to provide records of their fishing activity. This requirement is set out in the Byelaw in, paragraph 15 '*The permit holder must provide any relevant fisheries information required by the Authority for the discharge of its functions*'. The Authority is mindful of the fact that, where possible, as increased survey data and user evidence becomes available the permitting system will provide a flexible and responsive mechanism for timely adjustments to be made in the light of this increased evidence base. This process will be used to assess the impacts from the EA's proposals to increase the headline depth of coastal fixed nets to five metres.

8. Conclusions summarising recommended option

The recommended option is for D&S IFCA to introduce a new netting byelaw that seeks to balance the needs of all persons engaged in the exploitation of sea fisheries resources and seeks to balance the social and economic benefits of exploiting the sea fisheries resources in the district with the need to protect the marine environment from the effects of such exploitation.

The netting permit byelaw will remove all nets from the estuaries except for seine nets targeting sandeels, and restrict the use of fixed nets in coastal areas. The restrictions on netting will reduce the directed effort towards the grey mullet and bass fisheries in the estuaries, and protect other species caught as a bycatch in these fisheries including salmon and sea trout.

The reduced level of netting provides greater access to fish stocks for commercial and recreational fishers using rod and line.

The south and south west inshore marine plans are still in the early stages of development. Assessment of the Netting Permit Byelaw's compatibility with these cannot be undertaken at this stage but it does fulfil the principles set out in the Marine Policy Statement, namely;

- Achieving a sustainable marine economy

- Ensuring a strong, healthy and just society
- Living within environmental limits
- Promoting good governance
- Using sound science responsibly

Achieving a sustainable marine economy – D&S IFCA has used the best available economic data to understand the financial impact of the netting restrictions on the commercial netting sector. This loss of revenue will be offset by the unquantified, economic benefit gained by the businesses providing services to the recreational fishing sector and commercial rod and line fishers.

Ensuring a strong healthy and just society – D&S IFCA seeks to balance the needs and interests of all fishers and has applied different restrictions to each sector to reflect their needs from the public resources and to protect the marine environment from their activities. By restricting the netting effort and catches of the recreational sector it helps to support the commercial fishers by ensuring more fish is sourced by the general public through legitimate commercial outlets.

Living within environmental limits - the byelaw protects particular species that are under pressure at the current time. The netting restrictions are designed to reduce the bycatch of salmon and immature bass. The flexible nature of the netting permit byelaw means that should future habitat assessments alter existing evidence bases or highlight additional environmental concerns, then the review procedure within the Netting Permit Byelaw can be utilised to address changes in circumstances.

Promoting good governance – The Netting Permit Byelaw has been created to introduce increased flexibility and stakeholder participation. Control measures inherited from legacy byelaws have been reviewed and where fit for purpose have formed the basis for flexible conditions specified within the permits that are issued to fishers. The review procedure for flexible permit conditions clearly specifies that consultation with a range of consultees is required for any potential change in permit conditions. Permit holders and other stakeholders have been presented with a mechanism where they are able to identify changing circumstances and influence the decision making process and the activity being managed.

Using sound science responsibly – D&S IFCA has used the best available evidence to review netting activity and formulate the Netting Permit Byelaw. Three consultation periods were utilised to build the evidence bases documented in the required impact assessments. Where evidence has been lacking D&S IFCA has had to adopt a pre-cautionary approach. The review procedure for the flexible permit conditions allows for the introduction of new sound science to influence the conditions of use for fishers, whilst also recognising any potential social or economic impact that changes may present to stakeholders.

Although a significant amount of information has been inserted into this impact assessment it does not reflect the amount of information that has been collated and used throughout the process. D&S IFCA have fully documented all relevant information in a single report³¹.

³¹ Townsend N (2017) The D&S IFCA Netting Permit Byelaw – The final development report