

30th August 2019

Dear Sir/Madam

Firth of Clyde – Cod Spawning Closure - Spring 2020/21

Since 2001, a specific area in the Firth of Clyde has been closed to fishing each year between 14th February and 30th April in order to protect spawning cod. The Scottish Government has responsibility for the closure which is implemented on a biennial basis via a Scottish Statutory Instrument (SSI). Exemptions have been provided for *Nephrops* trawlers, creels and scallop dredgers in the area due to the low amounts of cod that they catch.

This letter seeks your views on continuation of the closure in 2020/21 including the exemptions previously provided.

All respondents should be aware of the guidance in Annex B (which also explains how we will handle your response) and should complete the Respondent Information Form (RIF) at Annex C.

The deadline for responses is 20th September 2019.

We look forward to hearing your views.

Yours faithfully

Rosanne Dinsdale
Sea Fisheries
Marine Scotland
30th August 2019

CLYDE COD SPAWNING CLOSURE SPRING 2020/21

Objective of the consultation

1. The Scottish Government has introduced a Scottish Statutory Instrument (SSI) each year from 2002-2019 to provide for the closure of a specified area of the Clyde to most types of fishing activity from 14 February to 30 April. The purpose of the closure, first introduced by the EU Fisheries Council in 2001, has been to protect spawning cod in the area. Exemptions have been provided for *Nephrops* trawlers, creels and scallop dredgers in the area due to the low amounts of cod they catch.
2. SSI 2017/450 providing for the current closure regime in 2018/19 is available online¹.
3. This consultation seeks views on Scottish Government's proposal to continue the closure in 2020/21 including the exemptions previously provided.

Desired aims

4. This document sets out the key issues that need to be considered in determining arrangements for 2020/21 and how the Scottish Government intends to proceed, subject to views received in response to this consultation.
5. The Scottish Government is requesting views on the continuation of a seasonal closure by means of an SSI. We are committed to supporting the recovery of cod stocks in Scottish waters and further afield. We wish to sustain appropriate measures that meet as far as possible the following aims:
 - a. to offer effective protection to the local spawning cod stock, as a contribution to the wider recovery of cod stocks; and,
 - b. to complement, as far as possible, other west of Scotland cod recovery or other stock management measures.

Effectiveness: precautionary approach

6. There has been little sign of improvement in the state of cod stocks in the west of Scotland in recent years.
7. As for many area closures of this type, it is relatively difficult to substantiate its precise biological effect. Some argue that the fact that the stock has yet to show significant signs of recovery means that it is imperative that the protection offered by the closure is maintained, because the stock remains vulnerable; others argue that the closure is not having a demonstrable substantial effect and should therefore be amended or discontinued.
8. The proposed closure area in the Clyde is within ICES² area 6a (West of Scotland)³ which in 2019 has a TAC of 1735 tonnes for cod and a 10% bycatch limit. The latest scientific advice from ICES for cod in area 6a states that recruitment of cod has been low since 2001

¹ www.legislation.gov.uk/ssi/2017/450/made/data.pdf

² International Council for the Exploration of the Sea.

³ <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/cod.27.6a.pdf>

and is considered impaired and - when the maximum sustainable yield (MSY) approach is applied - there should be zero catches in each of the years 2020 and 2021.

9. In August 2015 a scientific paper entitled "*Evaluating the effectiveness of a seasonal spawning area closure*"⁴ was published. The message from the study was that whilst the rationale for the spawning closure was sensible, it had no detectable impact on wider cod numbers. The paper concluded that this was probably due to the poor state of the stock when the closure was implemented and the continuing sources of fishing mortality other than fishing, as well as an increase in predators and competitors.
10. However, it has also been found that cod from the Clyde are reproductively isolated, having little detectable exchange with the northern spawning aggregations^{5,6}. Genetic evidence also supports this population structure as Clyde cod were found to have a greater similarity to those from the Irish Sea than the cod from the northern aggregations⁷.
11. More recently a study was undertaken by the Scottish Oceans Institute and Clyde Fishermen's Association during the spawning period with demersal and pelagic gears. Although still in draft format the report shows the presence of spawning cod in the closed area during the closure period, indicating that the closure is in the right place at the right time. A programme of work has been agreed for the study to continue biannually for 5 years.
12. Taking all of the available evidence into account the Scottish Government remains of the view that the closure does offer some necessary protection to spawning fish at a crucial stage in their life cycle. To remove closure provisions altogether would place wider cod stocks at unacceptable risk of further depletion, unless appropriate alternative measures were introduced in its place.
13. Scottish Ministers have committed to a programme of research and practical measures called 'Clyde 2020' to contribute to restoration of the Clyde marine ecosystem. The work will be overseen by a sub-group of the Clyde Marine Planning Partnership. Clyde 2020 will implement a programme of work to enhance the Clyde marine ecosystem and as part of this work it will consider what further management may be needed.
14. The terms of the current SSI are tailored to the particular requirements of the closure. The terms aim to provide legal protection for spawning cod at the correct time and place, and allow for some fishing activities to continue. Furthermore the closure complements other such closures in the region, including the Irish Sea closure which has taken place at the same time of year as the Clyde closure since 2001.

⁴ <http://icesjms.oxfordjournals.org/content/early/2015/08/12/icesjms.fsv144.full.pdf+html>

⁵ Wright, P. J., Galley, E., Gibb, I. M., and Neat, F. C. (2006) Fidelity of adult cod to spawning grounds in Scottish waters. *Fisheries Research*, 77: 148-158.

⁶ Wright, P. J., Neat, F. C., Gibb, F. M., Gibb, I. M., and Thordarson, H. (2006) Evidence for metapopulation structuring in cod from the west of Scotland and North Sea. *Journal of Fish Biology*, 69: 181-199.

⁷ Heath, M. R., Culling, M. A., Crozier, W. W., Fox, C. J., Gurney, W. S. C., Hutchinson, W. F., Nielsen, E. E., Wright, P. J., Calvalho, G. (2014). Combination of genetics and spatial modelling highlights the sensitivity of cod (*Gadus morhua*) population diversity in the North Sea to distributions of fishing. *ICES Journal of Marine Science*, 71: 794-807.

Spatial extent of the closure

15. The proposal on which we are seeking views is to continue all of the provisions of the 2018/19 closure into 2020/21. As in previous years, the 2020/21 closure will provide for restriction in two areas from 14 February to 30 April (Annex A).
16. Area 1 is that part of ICES statistical rectangle 39E4 which lies to the east of the peninsula of Kintyre and to the north of a straight line between 55°18'18" north latitude, 05°38'50" west longitude, and 55°00'30" north latitude, 05°09'24" west longitude.
17. Area 2 is that part of ICES statistical rectangle 39E4 which lies to the north of a straight line between 55°17'57" north latitude, 05°47'54" west longitude and 55°00'00" north latitude, 05°21'00" west longitude and to the south of a straight line between 55°18'18" north latitude, 05°38'50" west longitude and 55°00'30" north latitude, 05°09'24" west longitude⁸.
18. The intention is to protect key spawning grounds and aggregations whilst leaving other areas, such as the North Channel, open with the aim of enabling fishermen to work elsewhere during the closure.

Exemptions

19. The following exemptions have been provided in previous years:

Area 1: *Nephrops* trawlers, scallop dredgers and creel vessels;

Area 2: Scallop dredgers and creel vessels.

20. For the 2020/21 closure, the Scottish Government proposes to retain these exemptions.

21. Note that exemptions do not apply in areas within the South Arran MPA where other fisheries management measures are in place⁹. Furthermore, consultations are due to take place in 2019 regarding fisheries measures for the Clyde Sea Sill MPA. In future, exemptions may therefore also not apply in areas within the Clyde Sea Sill MPA where other fisheries management measures may be introduced.

Conclusion

22. The Scottish Government considers that it would be appropriate to continue the provisions for the closure in previous years into 2020/21.
23. Views are invited on all issues raised in this paper and responses to the questions posed in Annex C. **We would ask for views to be received no later than 20th September 2019.**

⁸ These are co-ordinates of latitude and longitude according to the World Geodetic System 1984 ("WGS 84"). WGS84 is defined at paragraph 2.1 of the United States National Imagery and Mapping Agency Technical Report TR8350.2, third edition, amendment 1 of 3rd January 2000 entitled "Department of Defense World Geodetic System 1984" (<http://earth-info.nga.mil/GandG/publications/tr8350.2/wgs84fin.pdf>). International Council for the Exploration of the Seas (ICES) standardise the division of sea areas for statistical analysis. Each ICES statistical rectangle is '30 min latitude by 1 degree longitude' in size.

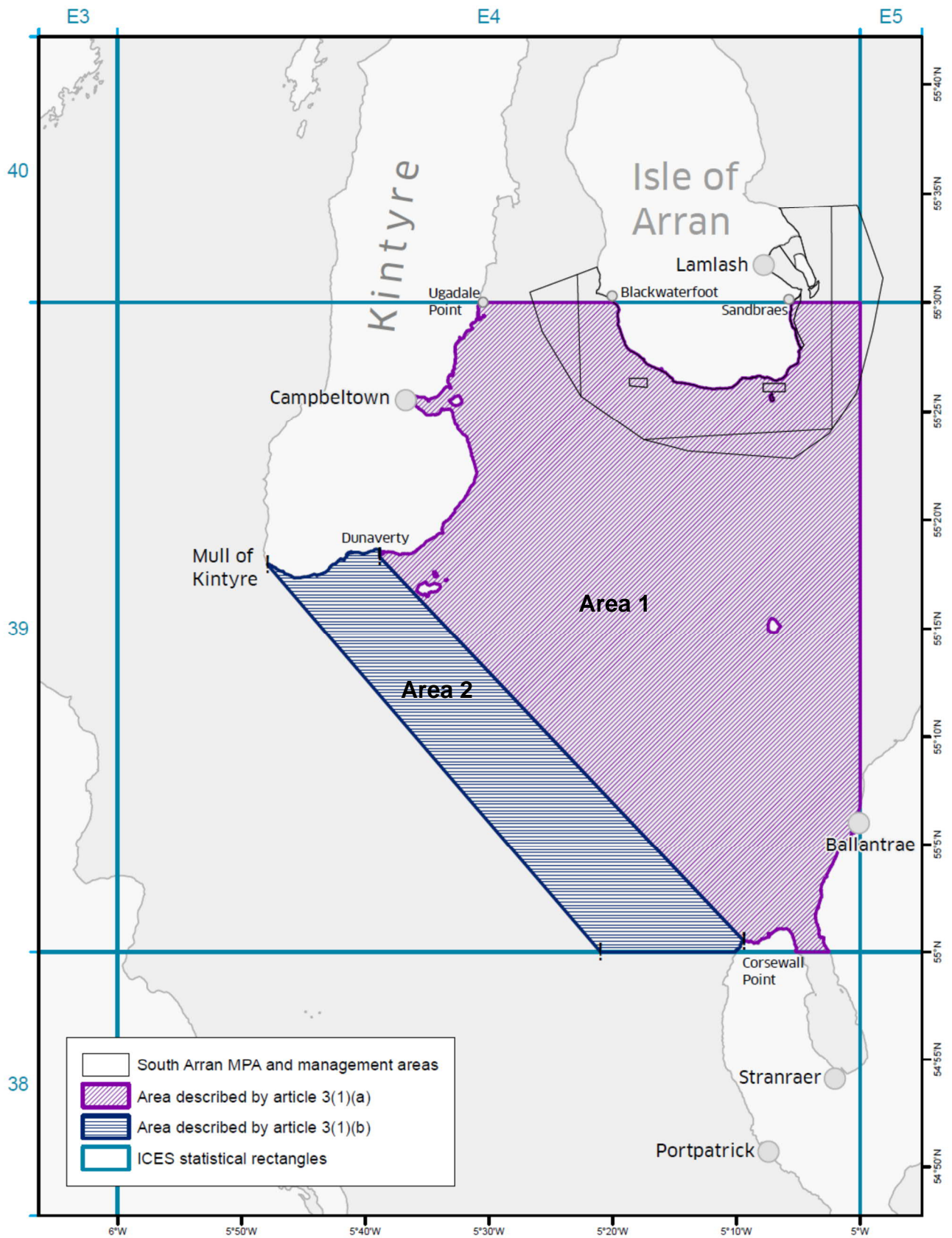
⁹ South Arran MPA [fisheries management measures](#).

What questions does the consultation seek to consider?

1. Do you agree with the Scottish Government's view that it is appropriate to introduce a closure as in previous years for 2020/21?
2. Do you have any views on the exemptions applied?
3. Do you have any views on alternative or complementary measures that could be considered in the longer-term beyond 2020/21?

Annex A

Illustrative map of the area.



NOT FOR NAVIGATION. Created by Scottish Government (Marine Scotland) 2015. gj1069. © Crown Copyright. Contains data © ICES
Projection: Mercator. Datum: WGS 1984. Standard Parallel: 55°0'0.00"N

Annex B

Consultation period and responses to the consultation

This **consultation will run for three weeks**, with a **closing date for responses of 20th September 2019**.

The consultation Respondent Information Form (RIF) (Annex C) should be completed and sent, by email if possible, to Rosanne Dinsdale at: rosanne.dinsdale@gov.scot.

Alternatively, write to: Rosanne Dinsdale, Area 1B South, Victoria Quay, Edinburgh, EH6 6QQ

If you have any queries, please contact Rosanne Dinsdale, International Fisheries Policy Manager (tel: 0131 244 2519)

Handling your response

We need to know how you wish your response to be handled. Please complete and return the Respondent Information Form which forms part of the consultation questionnaire as this will ensure that we treat your response appropriately.

The views and suggestions detailed in consultation responses are analysed and used as part of the decision making process, along with a range of other available information and evidence. Depending on the nature of the consultation exercise the responses received may:

- indicate the need for policy development or review;
- inform the development of a particular policy;
- help decision to be made between alternative policy proposals; or,
- be used to finalise legislation before it is implemented.

Final decisions on the issues under consideration will, if appropriate, also take account of a range of other factors, including other available information. While details of particular circumstances described in a response to a consultation exercise may usefully inform the policy process; consultation exercises cannot address individual concerns and comments, which should be directed to the relevant public body.

Privacy

Your responses, which will include personal information, are being processed as a public task. You have the right to object to this processing.

Your information will be held securely on the Scottish Government IT system and will only be accessible by authorised officials.

You have the right to ask for any personal information we hold about you.

We will only collect as much information about you as we need and will not share it with anyone outside of Scottish Government. If we share your responses, we will remove your personal details. We will only store your personal information for as long as we need it.

We will only contact you about your responses if you have given consent for us to do so. If you give consent for us to contact you then you have the right to withdraw that consent and you will no longer hear from us. We will continue to process your response information.

If you are unhappy about how your information is being handled then you can contact our data protection officer dataprotectionofficer@gov.scot.

All respondents should be aware that the Scottish Government is subject to the provisions of the Freedom of Information (FOI) (Scotland) Act 2002 and would therefore have to consider any request made to it under the Act for information relating to responses made to this consultation exercise. In the event of an FOI request, personal details would be redacted.

If you have any comments about how this consultation exercise has been conducted, please send them to the same address as for your response.

**Annex C
Consultation on the Firth of Clyde Cod Spawning Closure
2020/21**



RESPONDENT INFORMATION FORM

Please Note this form **must** be returned with your response to ensure that we handle your response appropriately

1. Name/Organisation

Scottish Environment LINK

Title Mr Ms Mrs Miss Dr **Please tick as appropriate**
Surname

Brooker

Forename

Esther

2. Postal Address

13 Marshall Place

Perth

Postcode PH2 8AH

Phone 07726362727

Email
esther@scotlink.org

3. Privacy

We will share your response internally with other Scottish Government policy teams who may be addressing the issues you discuss. They may wish to contact you again in the future, but we require your permission to do so. Are you content for Scottish Government to contact you again in relation to this consultation exercise?

Please tick as appropriate **Yes** **No**

CONSULTATION QUESTIONS

Question 1:

Do you agree with the Scottish Government's view that it is appropriate to introduce a closure as in previous years for 2020/2021?

Comments:

Yes, LINK members agree that the continuation of the closure for the protection of spawning cod in the Clyde is entirely appropriate. In the context of the recent ICES stock assessment¹⁰ showing low levels of North Sea cod stocks, and ICES stock assessment of limited population growth in the West of Scotland¹¹, this closure is essential in contribution to a package of measures seeking to enable recovery of cod stocks. LINK members note the ICES advice for West of Scotland is that there should be zero catches in 2020 and 2021, if the MSY approach is applied.

LINK members acknowledge that evidence on the biological effect of the closure is limited and that the Clarke *et al.* (2015)¹² study noted no detectable recovery of cod as a result of the closure. However, the same study suggests that if the closure had been implemented sooner it may have been more effective, as Clyde cod had already collapsed at the time of its implementation. The rationale for continuing to implement the closed area to protect spawning cod is justified on a precautionary basis to reduce targeted fishing effort on spawning cod¹³, prevent additional fishing effort being displaced and to protect critical habitat for cod. Protected areas are known to provide benefits to fisheries, as most recently evidenced by the Windssock cod recovery area which (before its repeal) demonstrated the benefits of long-term fisheries closures¹⁴.

Question 2:

Do you have any views on the exemptions applied?

Comments:

The exemptions would allow the use of certain types of mobile and static demersal fishing gear to be used within the area. LINK members believe these exemptions should be re-considered for three key reasons:

- Mature cod may be caught as bycatch in both mobile and static demersal gear – steps should be taken to avoid this;
- Essential spawning habitat for cod (complex coarse gravel and mixed sands) is present within the closed area and therefore disturbance by all mobile demersal gear should be avoided
- Exemptions could be disturbing spawning cod (altering spawning aggregation behaviour and interrupting the spawning process) and preventing successful reproduction¹⁵

It is clear from the advice provided by ICES (based on regional stock assessments cited in question 1) that cod stocks are at a critical level and management measures must maximise their recovery potential. Optimal cod spawning habitats are listed as Priority Marine Features within the South Arran¹⁶ and Clyde Sea Sill¹⁷

¹⁰ <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/cod.27.47d20.pdf>

¹¹ <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2019/2019/cod.27.6a.pdf>

¹² Clarke, J., Bailey, D. M., & Wright, P. J. (2015). Evaluating the effectiveness of a seasonal spawning area closure. *ICES Journal of Marine Science*, 72(9), 2627-2637.

¹³ Eero, M., Hinrichsen, H. H., Hjelm, J., Huwer, B., Hüsey, K., Köster, F. W., ... & Zimmermann, C. (2019). Designing spawning closures can be complicated: Experience from cod in the Baltic Sea. *Ocean & coastal management*, 169, 129-136.

¹⁴ <https://www2.gov.scot/Uploads/Documents/SISP0209.pdf>

¹⁵ Clarke, J., Bailey, D. M., & Wright, P. J. (2015). Evaluating the effectiveness of a seasonal spawning area closure. *ICES Journal of Marine Science*, 72(9), 2627-2637.

¹⁶ shallow tide-swept coarse sands with burrowing bivalves

¹⁷ Circalittoral and offshore sand and coarse sediment communities

nature conservation Marine Protected Areas (MPAs) which overlap with the spawning closure. Cod itself is also a Priority Marine Feature (PMF) and an OSPAR Threatened and Declining species. The National Marine Plan (General Policy 9B) requires no significant impact on the national status of PMFs, therefore LINK members would like to see progressive steps taken to manage pressures on these PMFs within and outside MPAs to maximise the recovery potential of cod (see question 3).

Question 3:

Do you have any views on alternative or complementary measures that could be considered longer-term beyond 2020/21?

Comments:

As previously suggested, spatial protection of spawning habitat for cod should be prioritised as part of a suite of measures designed to enable the national recovery of cod populations (in addition to a reduction in effort and measures to prevent bycatch). LINK members agree that such PMF habitats, where identified within MPAs, should be better protected from pressures including mobile demersal gear. LINK members also suggest that highly protected marine areas should be identified for the recovery of cod populations.

Increased monitoring and enforcement should also be prioritised as part of any management measures implemented for the protection and recovery of cod, including the roll out of Remote Electronic Monitoring (REM) with cameras for the Scottish fishing fleet and allocation of quota based on track record. Case-specific monitoring to assess the impact of the closed area is essential to inform an adaptive approach to management¹⁸.

This consultation response was compiled on behalf of Scottish Environment LINK's Marine Group and is supported by: Marine Conservation Society, Scottish Wildlife Trust, Whale and Dolphin Conservation and WWF.

¹⁸ Eero, M., Hinrichsen, H. H., Hjelm, J., Huwer, B., Hüsey, K., Köster, F. W., ... & Zimmermann, C. (2019). Designing spawning closures can be complicated: Experience from cod in the Baltic Sea. *Ocean & coastal management*, 169, 129-136.