

Firth of Clyde - Cod Spawning Closure - Spring 2024/25

Consultation

June 2023

E: clydecodclosure@gov.scot

30 June 2023

Dear Sir/Madam

Firth of Clyde – Cod Spawning Closure - Spring 2024/25

Since 2001, a specific area in the Firth of Clyde has been closed to fishing each year between 14 February and 30 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).

Despite the closure having been in place since 2001, the stock has shown little sign of recovery. Scientific research suggests that any activity within 10m of the seabed has the potential to impact on spawning activity. In the past, exemptions were provided for *Nephrops* trawlers, creels and scallop dredgers due to the low amounts of cod that they catch. This did not account for any disturbance to the seabed and surrounding water column that may be caused. Removing all fishing activity during the spawning period is thought to provide the highest chance of stock recovery and may contribute to a more sustainable fishery in the Clyde in the medium-longer term.

In 2022 the closure was introduced without any exemptions, therefore prohibiting all fishing in the area. However the overall closure area was adjusted to make it more targeted and focused. For 2022-23 the prohibition on fishing applied to two areas covering 28% less area than previous closures. This allowed fishing to continue in surrounding areas, whilst protecting the cod where it is most likely to be spawning.

This letter seeks your views on continuation of the closure in 2024/25 and poses specific questions in Annex C.

Alongside the consultation document we have also published a partial Business and Regulatory Impact Assessment (BRIA). This will be finalised following the end of the consultation period in order to allow information collected during the consultation to feed into the assessment.

All respondents should be aware of the guidance in Annex B and complete the Respondent Information Form (RIF) in Annex C.

Please see Annex B for details on how we will handle your response.

The consultation will run for 12 weeks and we are inviting both our existing list of stakeholders and members of the public to share their views.

Please note that the closing date is midnight on Friday 22 September 2023.

We look forward to hearing your views.

Yours faithfully

Marine Directorate of the Scottish Government

Firth of Clyde Cod Spawning Closure Spring 2024/25

Objective of the Consultation

1. The Scottish Government has made a Scottish Statutory Instrument (SSI) on a biennial basis from 2002-2023 to provide for the closure of a specified area of the Clyde to most types of fishing activity from 14 February to 30 April each year. The purpose of the closure, first established by the EU Fisheries Council in 2001, has been to protect spawning cod in the area.
2. Exemptions were previously provided for *Nephrops* trawlers, creels and scallop dredgers in the area due to the low amounts of cod they catch. Exemptions were removed in 2022 and 2023 on the basis that scientific research suggests that any activity within 10m of the seabed has the potential to impact on spawning activity. Removing all fishing activity during the spawning period was considered to be the best way to protect spawning cod and therefore contribute to a more sustainable fishery in Clyde in the medium-longer term.
3. Using the best available data on seabed substrate combined with knowledge of where cod are most likely to spawn, the overall closure area was also adjusted to make it more targeted and focused. For 2022-23 the prohibition on fishing applied to two areas covering 28% less total area than previous closures. This allowed fishing to continue in surrounding areas, whilst protecting the cod where it is most likely to be spawning.
4. The Sea Fish (Prohibition on Fishing) (Firth of Clyde) (No.2) Order 2022 No. 35 provided for the closure regime in 2022/23 and is available online¹. This consultation seeks views on the continuation of the seasonal closure in 2024/25.

Lessons Learned

5. The Scottish Government acknowledges that the process it followed in 2021 and early 2022 to implement the seasonal spawning closure fell short of its co-management principles and practices. Therefore, to provide greater transparency and give stakeholders sufficient time to consider the proposals for 2024/25, we are holding a full 12 week public consultation.

Desired Aims

6. This consultation document sets out the key issues that need to be considered in determining arrangements for 2024/25, subject to views received in response to this consultation.
7. The Scottish Government is requesting views on the continuation of the seasonal closure by means of an SSI. We are committed to supporting the recovery of cod stocks in Scottish waters and further afield and are of the view that a continuation of the seasonal closure of specified areas in the Clyde may contribute towards that recovery. We wish to sustain appropriate measures that meet as far as possible the following aims:

¹ [The Sea Fish \(Prohibition on Fishing\) \(Firth of Clyde\) \(No. 2\) Order 2022](#)

- a. to offer effective protection to the local spawning cod stock, as a contribution to the wider recovery of cod stocks,
- b. to complement, as far as possible, other west of Scotland cod recovery or other stock management measures; and
- c. to ensure the seasonal closure is in line with other management measures in Scottish waters, including the National Cod Avoidance Plan.

Effectiveness: Precautionary Approach

8. There has been little sign of improvement in the state of the west of Scotland cod stocks in recent years.²
9. As with many area closures of this type, it is challenging to substantiate its precise biological effect. One school of thought is that, since the stock has yet to show significant signs of recovery, it is imperative that the protection offered by the closure is maintained or even strengthened, because the stock remains vulnerable; on the other hand, some have argued that the closure is not having a demonstrable effect and should therefore be amended or discontinued.
10. The proposed closure area in the Clyde is within ICES3 Division 6a (West of Scotland) which in 2023 has a bycatch total allowable catch (TAC) of 1210 tonnes for cod and currently a 1 tonne bycatch limit and 5% or less of total catch per trip for cod. Last year's scientific advice from ICES for cod in Area 6a shows that recruitment of cod has been low since 2001 and that, when the maximum sustainable yield (MSY) approach is applied, there should be zero catches in each of the years 2023 and 2024. ICES carried out a benchmarking exercise in February 2023 which is likely to result in a significant change to how ICES provide TAC advice for cod in the west of Scotland. We will have to wait until the TAC advice is published in the autumn before we can draw conclusions but we anticipate that that the western stock advice will require a review of the current cod management measures for both offshore and inshore cod stocks. Regardless of the new advice/approach, spawning areas will remain an important priority for stock management.
11. Good, consistent, detailed time-series of data on the distribution of spawning cod in the Clyde does not currently exist. We must therefore rely on the information that is available and use it to take a risk-based approach.
12. In August 2015 a scientific paper entitled "Evaluating the effectiveness of a seasonal spawning area closure"⁴ was published in the ICES Journal of Marine Science, focusing on this particular closure area. The results from the study were that whilst the rationale for the spawning closure was sensible, it had no detectable impact on wider cod numbers in the Clyde. 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 mortality.

² [ICES advice on Cod \(*Gadus morhua*\) in Division 6.a \(West of Scotland\), published 30 June 2022](#)

³ International Council for the Exploration of the Sea.

⁴ Clarke, J., Bailey, D.M. and Wright, P.J., 2015. Evaluating the effectiveness of a seasonal spawning area closure. ICES Journal of Marine Science, 72(9), pp.2627-2637.

13. This paper noted, based on earlier studies, that cod from the Clyde are reproductively isolated, having little detectable exchange with the northern spawning aggregations^{5,6}. Genetic evidence also supports this finding, as Clyde cod were found to have a greater similarity to those from the Irish Sea than the cod from the northern aggregations⁷. Irish Sea cod (ICES Area 7a) is also in poor state, with ICES also advising zero catches in each of the years 2023 and 2024. Given the evidence for reproductive isolation it is even more important to have specific management measures in place in the Clyde.
14. Additionally there is evidence to suggest that seabed disturbance may have an impact on spawning cod. Cod mate using a “lekking” system. Males take possession of seabed areas, which they protect from other males, and attract females by “grunting.” Males may also follow females through the water column to 10m above the seabed while mating. During this period, cod are focussed on mating and therefore are very vulnerable to fishing. If they are disturbed, they are unlikely to return and may not mate that year.
15. Cod prefer to spawn on harder substrate (course sand, gravel), but may also spawn on softer ground (sand, muddy sand, sandy mud). The least preferred sediment type is fine mud, but spawning right next to muddy areas has been observed. Any closure should therefore cover at least the sand and gravel areas, but with a precautionary buffer to ensure that spawning is not affected by nearby fishing activity.
16. We therefore consider that any fishing within 10m of the seabed on their preferred spawning sediment may cause disturbance to both the habitat and the spawning cod.
17. Taking all of the available evidence into account, the Scottish Government remains of the view that the closure offers some necessary protection to spawning cod at a crucial stage in their life cycle. To remove closure provisions altogether would place cod stocks at unacceptable risk of further depletion and would not align with fisheries objectives as set out in section 1 of the Fisheries Act 2020 including the sustainability objective, the precautionary objective, the ecosystem objective and the scientific evidence objective, unless appropriate alternative measures were introduced in their place. We will of course continue to review the appropriateness of the spawning closure and any available scientific evidence going forward.

Ongoing and Future Fisheries Management

18. The 2022 SSI makes provisions which achieves the particular requirements of the closure. These provisions provide a degree of legal protection to spawning cod at the correct time and place, whilst allowing for fishing activities to continue in the surrounding areas. In addition, the closure complements other similar closures in the region, including the Irish Sea closure which, since 2001, has taken place at the same time of year as the Clyde closure, and also more widely aligns with the National Cod Avoidance Plan.
19. In terms of other ongoing management initiatives in the Firth of Clyde, the Clyde 2020 initiative was started jointly by the science, planning and policy and sea fisheries divisions

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, PJ, 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.

within the Marine Scotland Directorate, under former Cabinet Secretary Richard Lochhead, in 2014 to improve the marine ecosystem of the Clyde in response to the publication of the Clyde Ecosystem Review by Marine Scotland (2012). The [Clyde 2020 Action Plan](#) was published in 2015. There are synergies between the objectives of Clyde 2020 and regional marine planning. The Clyde Marine Planning Partnership have been developing The Clyde Regional Marine Plan with powers delegated from Scottish Ministers since 2017. The Clyde Regional Marine Plan will include policies for the sustainable development of the Clyde Marine Region along with other requirements outlined in Part 3 of the Marine (Scotland) Act 2010. We understand that the regional Inshore Fisheries Group and Clyde Fishermen's Association will input into the Clyde Marine Planning Partnership in respect of fishing interests. Further details can be found at the following link: [Clyde Marine Planning Partnership | Sustainable, coordinated management of the Clyde Marine Region](#)

20. Our Future Fisheries Management Strategy⁸ makes a commitment to work with our stakeholders to deliver an ecosystem based approach to fisheries management, including considering additional protections for spawning and juvenile aggregation areas in Scottish waters.

Proposal for the Closure in 2024/25

21. The proposal on which we are seeking views is to continue in 2024/25 all of the measures which applied in respect of the 2022/23 closure. Therefore, as in previous years, the 2024/25 closure will provide for prohibition of fishing in two areas of the Clyde from 14 February 2024 to 30 April 2024 and 14 February 2025 to 30 April 2025.

22. Co-ordinates and a map for the two closure areas can be found in Annex A.

23. The intention is to protect key spawning grounds (Areas 1 and 2) whilst leaving other surrounding areas open to enable fishing to continue elsewhere during the closure.

Exemptions

24. The following exemptions were provided for up until the 2022 spawning closure:

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

Area 2: Scallop dredgers and creel vessels.

25. Exemptions were removed in 2022, meaning that there was a complete prohibition of fishing within the spawning area. Whilst the previously exempted fishing methods were understood to catch few cod, we did not previously account for the disturbance that these methods have on both the spawning cod and the seabed. Scientific research suggests that any activity within 10m of the seabed has the potential to impact on spawning activity.

26. As during the 2022/23 closure, the Scottish Government proposes that there are no exemptions during 2024 and 2025 in order to provide the maximum level of protection to the spawning cod and provide the highest chance of stock recovery.

⁸ [Future Fisheries Management Strategy 2020-2030](#)

27. The South Arran Marine Conservation Order 2015 No. 437 (the South Arran MCO) prohibits and regulates fishing activities in the South Arran Nature Conservation Marine Protected Area Order 2014. Restrictions contained in the South Arran MCO which overlap with parts of the Clyde cod closure area will continue to apply in addition to the measures which will be contained in the forthcoming Clyde cod closure SSI.
28. Management measures for the Clyde Sill MPA are currently being developed and have been discussed with stakeholders they are due to be implemented in 2024 following a sustainability appraisal and a public consultation. However, it's worth noting that once in place, this has the potential to impact a large part of Area 2.

Conclusion

29. The Scottish Government proposes to renew the seasonal closure in the specified area in the Firth of Clyde for 2024/25 (see map in Annex A) as in previous years.
30. Views are invited on all issues raised in this consultation paper and responses to the questions posed in Annex C.

What questions does the consultation seek to consider?

1. Do you agree with the Scottish Government's view that it is appropriate to renew the seasonal closure in the Clyde, as in 2022 and 2023, to protect spawning cod, for 2024/25?

Yes / No

2. Please give reasons for your answer to question 1
3. Do you agree with the continued removal of previous exemptions?

Yes / No

4. If no, which exemptions should continue?

Creels
Scallop dredging
Nephrops trawling
Other exemption

5. Please give reasons for your answer to question 4
6. Do you have any views on alternative or complementary measures that could be considered for the protection of cod spawning in the Firth of Clyde for 2024 and beyond?

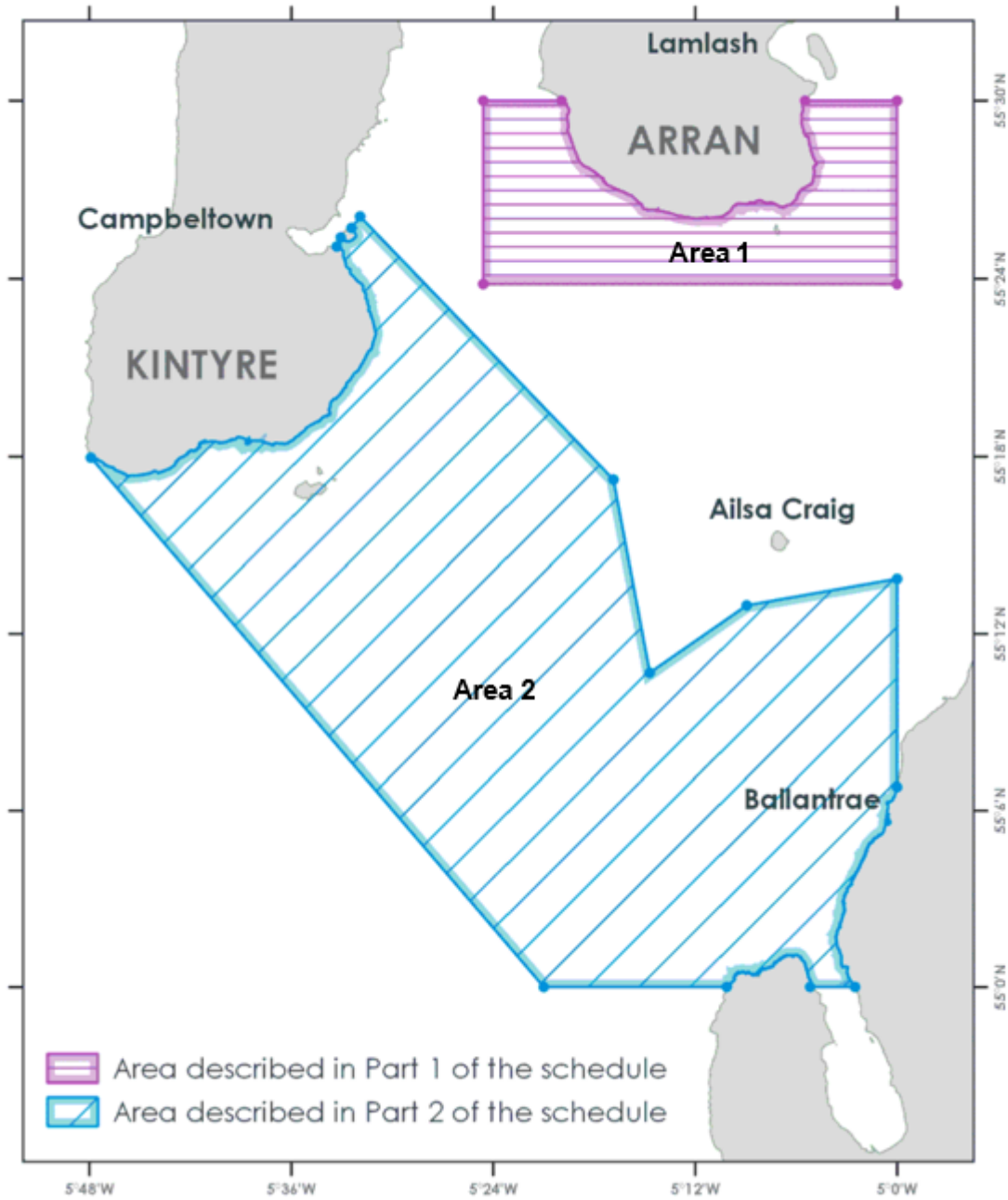
Yes / No

7. If yes please give details

Annex A

Illustrative map of the area.

Illustrative Map Referred to in the Explanatory Note to the Sea Fish (Prohibition on Fishing) (Firth of Clyde) (No. 2) Order 2022



Area 1 – North Area GPS coordinates

Point A - 55° 30.000' N, 005° 05.472' W
Point B - 55° 30.000' N, 005° 00.000' W
Point C - 55° 23.820' N, 005° 00.000' W
Point D - 55° 23.820' N, 005° 24.600' W
Point E - 55° 30.000' N, 005° 24.600' W
Point F - 55° 30.000' N, 005° 19.947' W

Area 2 – South Area GPS coordinates

Point A - 55° 25.713' N, 005° 32.426' W
Point B - 55° 26.100' N, 005° 31.920' W
Point C - 55° 17.220' N, 005° 16.860' W
Point D - 55° 10.680' N, 005° 14.700' W
Point E - 55° 12.960' N, 005° 08.940' W
Point F - 55° 13.860' N, 005° 00.000' W
Point G - 55° 06.797' N, 005° 00.000' W
Point H - 55° 00.000' N, 005° 02.496' W
Point I - 55° 00.000' N, 005° 05.170' W
Point J - 55° 00.000' N, 005° 10.120' W
Point K - 55° 00.000' N, 005° 21.000' W
Point L - 55° 17.962' N, 005° 47.914' W
Point M - 55° 25.088' N, 005° 33.303' W
Point N - 55° 25.392' N, 005° 33.065' W

Annex B

Responding to this Consultation

We are inviting responses to this consultation by midnight on Friday 22 September 2023.

Please respond to this consultation using the Scottish Government's consultation hub, Citizen Space (<http://consult.gov.scot>). Access and respond to this consultation online at <https://consult.gov.scot/marine-scotland/firth-of-clyde-cod-spawning-closure-for-2024-25>. You can save and return to your responses while the consultation is still open. Please ensure that consultation responses are submitted before the closing date of midnight on Friday 22 September 2023.

If you are unable to respond using our consultation hub, please complete the Respondent Information Form to:

International Fisheries Demersal
Scottish Government
Area 1B-North
Victoria Quay
Edinburgh, EH6 6QQ

Or email: clydecodclosure@gov.scot

Handling your response

If you respond using the consultation hub, you will be directed to the About You page before submitting your response. Please indicate how you wish your response to be handled and, in particular, whether you are content for your response to be published. If you ask for your response not to be published, we will regard it as confidential, and we will treat it accordingly.

All respondents should be aware that the Scottish Government is subject to the provisions of the Freedom of Information (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.

If you are unable to respond via Citizen Space, please complete and return the Respondent Information Form included in this document.

To find out how we handle your personal data, please see our privacy policy:

<https://www.gov.scot/privacy/>

Next steps in the process

Where respondents have given permission for their response to be made public, and after we have checked that they contain no potentially defamatory material, responses will be made available to the public at <http://consult.gov.scot>. If you use the consultation hub to respond, you will receive a copy of your response via email.

Following the closing date, all responses will be analysed and considered along with any other available evidence to help us. Responses will be published where we have been given permission to do so. An analysis report will also be made available.

Comments and complaints

If you have any comments about how this consultation exercise has been conducted, please send them to the contact address above or at clydecodclosure@gov.scot.

Scottish Government consultation process

Consultation is an essential part of the policymaking process. It gives us the opportunity to consider your opinion and expertise on a proposed area of work.

You can find all our consultations online: <http://consult.gov.scot>. Each consultation details the issues under consideration, as well as a way for you to give us your views, either online, by email or by post.

Responses will be analysed and used as part of the decision making process, along with a range of other available information and evidence. We will publish a report of this analysis for every consultation. 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 decisions to be made between alternative policy proposals
- be used to finalise legislation before it is implemented

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.

Consultation on the Firth of Clyde Cod Spawning Closure 2024/25

Respondent Information Form

Please Note this form **must** be completed and returned with your response.

To find out how we handle your personal data, please see our privacy policy:

<https://www.gov.scot/privacy/>

Are you responding as an individual or an organisation?

- Individual
- Organisation

Full name or organisation's name

Phone number

Address

Postcode

Email Address

The Scottish Government would like your permission to publish your consultation response. Please indicate your publishing preference:

- Publish response with name
- Publish response only (without name)
- Do not publish response

Information for organisations:

The option 'Publish response only (without name)' is available for individual respondents only. If this option is selected, the organisation name will still be published.

If you choose the option 'Do not publish response', your organisation name may still be listed as having responded to the consultation in, for example, the analysis report.

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?

- Yes
- No

Consultation Questions

1. Do you agree with the Scottish Government's view that it is appropriate to renew the seasonal closure in the Clyde, as in 2022 and 2023, to protect spawning cod, for 2024/25?

Yes

No

2. Please give reasons for your answer to Q1:

3. Do you agree with the continued removal of previous exemptions?

Yes

No

4. If no, which exemptions should continue?

Creels

Scallop Dredging

Nephrops Trawling

Other

5. Please give reasons for your answer to Q4:

6. Do you have any views on alternative or complementary measures that could be considered for the protection of cod spawning in the Firth of Clyde for 2024 and beyond?

Yes

No

7. If yes, please give details:



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