

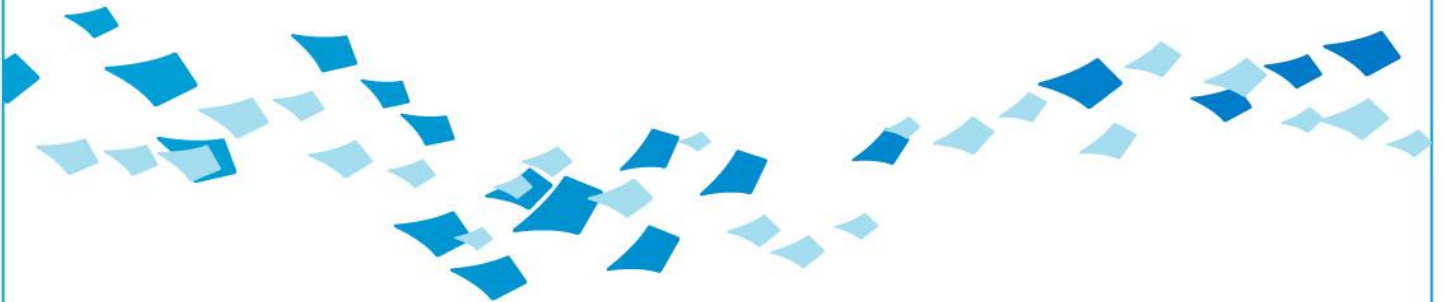
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Draft Discussion paper:

**Proposed initial management
measures for Whelk in English
Waters: Whelk permit**

**Prepared by Seafish in collaboration with the Whelk
Management Group (WVG)**



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1. This paper has been produced in collaboration with the industry-led Whelk Management Group (WMG), wider industry and fishery regulators to inform design of the English Whelk Permit. The paper scopes out how the scheme could be delivered to achieve its principle aim of protecting stocks, whilst minimising socio-economic impacts on industry. The paper explores eligibility criteria, how a permit would interface with existing IFCA management, spatial application, providing for new entrants and addressing unintended consequences. This document will be delivered to Defra and the Marine Management Organisation (MMO), and used to inform further decision making.

Executive Summary

2. The English Whelk Fisheries Management Plan (FMP) includes an initial management proposal to introduce a Whelk Permit scheme. The permit will support stock protection by managing fishing pressure, facilitating further fishery management measures (as required), and improving data collection.¹ Vessels with a permit will be authorised to fish for whelk (*Buccinum undatum*) using pots in English waters. Whelk landings from other gear types will be managed outside of the permit scheme.² This proposal was supported by the industry-led Whelk Management Group (WMG) during FMP development and was also widely supported during the FMP public consultation.
3. English whelk fisheries have developed considerably over recent years with the expansion of Asian markets – increasing their economic significance but raising concerns over long-term stability. Whilst whelk fisheries are predominantly targeted by under 10m vessels and remain important to small-scale inshore vessels, fleets are now characterised by an increased average length and fishing capacity.³ Whelk landings peaked in volume and value during the Covid pandemic (£16.5 million and ~16,000 tonnes in 2020) as other markets slowed, prompting a cohort of vessels to move into whelking.⁴ Some of these vessels have since left the fishery, but its value remains strong (£12.9 million and ~11,000 tonnes in 2023). A price peak in 2023 saw a further influx of vessels into whelk fisheries, which are increasingly being targeted by larger nomadic vessels.
4. Whelk fisheries are currently open access and data-limited, leaving stocks vulnerable to over-exploitation. Characterised by slow growth rates, low recruitment rates and limited larval dispersal, whelk are slow to recover from overfishing.⁵ Without sufficient quality data to evaluate stock health, it is not possible to determine whether current fishing pressure is sustainable. Furthermore, whelk fisheries are particularly vulnerable to rapid increases in effort since low entry costs mean vessels may easily move in and out of whelking if prices are high, or there are restrictions or declines in other fisheries.
5. The combined risks of poor data, slow growth/low recruitment, and easy access mean that action is necessary to safeguard whelk stocks and to ensure they continue to deliver social and economic benefits. Whilst many IFCAs have well-established management measures

¹ The focus of this paper is on progressing the development of a fit for purpose scheme for English whelk fisheries; there are no preconceived assumptions of what a permit means in practical terms.

² Pot fisheries are generally considered the most sustainable fishing method for whelks, with other gear types presenting a sustainability risk.

³ For UK vessels <12m in length, whelk has now overtaken crab and lobster as the most important shellfish species by volume caught in the pot and trap sector. For larger >12m vessels, whelk now rank the second most important species by volume.

⁴ Due to a fall in foodservice (e.g. whitefish/shellfish).

⁵ Particularly since effort management regimes will take time to develop and are strongly dependent on gathering better quality effort data to enable monitoring and enforcement.

for inshore whelk fisheries within the 0-6nm, a national framework is required to better understand and manage total fishing effort, and to support cohesive data collection initiatives and future stock assessment. A whelk permit will be an important first step in delivering this national level framework.

6. To support further discussion on the design and implementation of the permit, Seafish has produced this discussion paper in close collaboration with the WMG and following extensive engagement with wider industry and regulators. Engagement has highlighted that *how* the permit is designed and implemented will determine its impact on stocks and fishers, as well as its capacity to address potential unintended consequences.
7. This paper therefore details options for the design and implementation of a permit, reflecting stakeholder feedback. Stakeholder discussions and the subsequent development of the options under consideration have been guided by a set of design principles. Options are presented around:
 - a. Regional structure of the permit, and how this could be delivered;
 - b. Eligibility criteria and managing latent capacity;
 - c. Interaction between the new national permit and existing IFCA permits;
 - d. Creating an allowance for new entrants; and
 - e. Managing transfer conditions to mitigate risks associated with aggregation.
8. To develop a permit which is fit for purpose requires a joined-up approach, led by the Marine Management Organisation (MMO) and Defra, with input from the Inshore Fisheries and Conservation Authorities (IFCAs), industry, other UK jurisdictions, Crown Dependencies and the European Union. This is particularly important given that English whelk fisheries are targeted across jurisdictional boundaries, both within UK waters and EU waters.
9. The Fisheries Act 2020 and the English Whelk FMP set out the legal basis for this management intervention.⁶ Implementing a whelk permit will likely require a Statutory Instrument, and consideration should be given to how the measure will apply to EU vessels.

⁶ [Fisheries Act 2020 \(legislation.gov.uk\)](https://legislation.gov.uk)

Fishery overview

10. English whelk fisheries can be characterised as follows (see Annex 1 for additional detail):
 - a. Elevated risk of localised depletion due to biological stock characteristics (low reproductive rates, slow growth rate, limited larval dispersal);
 - b. An 85% increase in landings from 2008 (8,433 tonnes) to 2020 (15,610 tonnes). Post-Covid. Landings dropped by 41% in 2022 (9,271 tonnes) but subsequently started to recover in 2023 (10,910 tonnes, 17% increase);
 - c. A 16% increase in fleet size from 2010 (307 vessels) to 2016 (356), followed by a 30% decline between 2016-2022 (248), and 3% increase in 2023.
 - d. In 2023, 10m and under vessels made up 71% the whelk fleet and were responsible for 49% of landings. 10-12m and >12m vessels made up 16% and 12% of the fleet and were responsible for 25% and 26% of landings.
 - e. Southeast and eastern Channel fisheries are mainly targeted by <12m vessels, with larger vessels operating along the east coast, northwest and southwest.
 - f. More than 98% of landings are made using baited pots, however there is sometimes whelk landed as a bycatch by dredge, beam trawl, set net and demersal trawl fisheries (particularly in the southwest).
 - g. Key landing ports are located along the south and east coast, with highest landings into Shoreham-by-sea (1,431.4 tonnes, £1.6 million). Whelks are also economically important to ports along the northeast, northwest and southwest coasts.
 - h. The majority of whelk are exported to either the EU (often live whole whelk) or Asian markets (processed – cooked, picked and frozen meat).
11. At a national level, whelk fisheries are currently open access with no means to accurately measure, monitor or control total fishing effort. The only national management measure is a Minimum Conservation Reference Size (MCRS) of 45 mm total shell length. IFCA's with prominent whelk fisheries have implemented additional measures such as permit schemes, pot limits or larger MCRS (see Annex for additional detail).
12. There is currently no stock assessment for English whelk fisheries and no reference points against which to measure stock status. National LPUE (landings per kW days at sea) has remained relatively stable, with a slight dip during peak landings between 2015-2020. Within IFCA districts the picture is more varied, with LPUE in some fishing areas remaining stable or even increasing and declining in other areas⁷ (see Annex 1 for additional detail).

Rationale for management intervention

13. Access to English whelk fisheries is currently via a generic fishing license, meaning that any licensed vessel can fish for whelks in English waters. This makes the whelk fishery:
 - a. An attractive option for vessels that are displaced from other fishing grounds or fisheries;
 - b. An attractive option for new entrants to the fishing industry (particularly given the lower cost of whelk pots in comparison to other gear types); and
 - c. At risk from increased effort during periods of high whelk prices and high market demand.
14. In recent years the expansion of whelk export markets, improved whelk prices, and reduced fishing opportunities across other species, has resulted in an increase in both

⁷ There are a range of factors influencing LPUE, including changes in fishing activity, environmental drivers (e.g. marine heatwaves) and changes in data collection.

whelk landings and the number of vessels targeting whelks, particularly during years when prices were highest. At the same time, the whelk fishery is data deficient, with limited information on stock boundaries, stock health and level of fishing pressure (lack of accurate effort data in the form of pot numbers). This creates challenges for fisheries management and presents a risk in terms of long-term stock sustainability.

15. Implementing a whelk permit is an important first step in addressing these sustainability challenges. The principle aims are to:
 - a. Safeguard stocks from a potential influx of fishing effort when whelk prices are high and/or vessels are displaced from other fisheries;
 - b. Enable regulators to monitor and manage fishing capacity and the total amount of effort exerted on whelk stocks;
 - c. Enable regulators to apply additional management measures to protect stock sustainability and socio-economic value (if required); and
 - d. Accelerate improved understanding of stock status, through associated data collection conditions and by facilitating industry-science collaborations.

16. Broad consensus across published literature is that open access fisheries create challenges for sustainable management⁸, both from an environmental standpoint (a ‘tragedy of the commons’ scenario often results in overexploitation and stock decline⁹) and from a socio-economic standpoint (each user can take away from the benefits to others¹⁰). Scientific and international advisory bodies therefore advise against open access fisheries – “*Whichever management approach is taken, limiting fishing access is critical. Open access and uncontrolled fishing should not be considered for any capture fisheries*” (FAO, 2020).^{11,12,13,14,15} Managing access is particularly important to English whelk fisheries since the lack of quality effort data currently makes input and output controls difficult to implement and enforce on a national scale.

17. Limiting access to a fishery is therefore a standard management intervention that has been successfully applied in whelk and other shellfish fisheries across the UK, and globally. Annex 2 presents a summary of similar schemes from other jurisdictions to illustrate how they support sustainable management. There is no one size fits all approach, and permit schemes are designed to address specific challenges within each fishery. What works within smaller jurisdictions (e.g. in the Isle of Man, Wales, Granville Bay) might not work

⁸ With a potential exception for some small-scale / artisanal fisheries (Arthur, R.I., 2020. Small-scale fisheries management and the problem of open access. *Marine Policy*, 115, p.103867).

⁹ “A classic time-path of open-access fisheries has been repeated around the world. First, a newly-discovered resource is open to all comers; eventually, large harvests and profits attract more into the fishery; boats work harder to maintain their harvest; despite increased efforts, the harvests decline; leading to greater increases in effort, resulting in even greater declines in harvest, resulting in essential collapse of the fishery” – Stavins, R.N., 2011. The problem of the commons: Still unsettled after 100 years. *American Economic Review*, 101(1), pp.81-108.

¹⁰ Gordon, H.S., 2019. The Economic Theory of a Common-Property Resource: The Fishery 1. In *Fisheries Economics*, Volume I (pp. 3-21). Routledge.

¹¹ FAO, 2020. The state of world fisheries and aquaculture 2020. Sustainability in action. Rome: FAO.

¹² “Large and sustainable economic gains can result from better governance in capture fisheries through controlling the ‘open access’ problem” – Anderson, J.L. et al, 2011. The global program on fisheries: strategic vision for fisheries and aquaculture (No. 69544, pp. 1-12). The World Bank.

¹³ “The fundamental problem usually lies with intense fishing pressure brought about by open access to the fishery resources” – Welcomme, R.L. et al, 2010. Inland capture fisheries. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 365(1554), pp.2881-2896.

¹⁴ “The root cause of the economic problem in capture fisheries management lies in their traditional common property, or ‘common pool’, nature and the resulting open access, or near open access, fisheries” – Lodge, M.W. et al, 2007. Recommended Best Practices for Regional Fisheries Management Organizations: Report of an independent panel to develop a model for improved governance by RFMOs. Chatham House.

¹⁵ “Overexploitation of fish stocks and the significant lost value that results is primarily due to the dynamics of open access resources” – Bonzon, K., 2014. Towards investment in sustainable fisheries: A framework for financing the transition. Environmental Defence Fund.

on a larger scale across English EEZ, and vice versa. However, lessons can be learned to inform discussion on how the English whelk permit should function.

Whelk Permit Principles

18. A set of principles have been drafted to guide the design and implementation of the proposed whelk permit. These principles have been informed by:
- a. An analysis of responses to the 2023 English Whelk FMP consultation;
 - b. Discussions with the WMG (industry, fishery managers, and policy makers), both during FMP development and during the WMG Permit Workshop in April 2024;
 - c. Learnings from the introduction of other permit schemes in similar fisheries;
 - d. Discussions with IFCA during the IFCA Permit Workshop in June 2024; and
 - e. Targeted discussions with industry (summer / autumn 2024), covering both the inshore and offshore sectors across key whelk fishing regions.
19. The **Whelk Permit Principles** are that the permit should:
- a. Apply to the licences of all vessels fishing for whelk using pots in English waters (including non-UK registered vessels).
 - b. Have capacity to apply to specific regional fleets and/or stocks (e.g. based on ICES areas or another means of delineation).
 - c. Carry data collection requirements for whelk fisheries, which may vary depending on the area and the needs of the stocks.
 - d. Carry additional management measures (if required), which could include input controls, output controls, or technical measures.
 - e. Accommodate vessels which are currently active in and/or dependent on whelk pot fisheries, e.g. by applying a track record period.¹⁶
 - f. Carry minimal monetary value (as far as possible).
 - g. Address the risk of aggregation by setting the conditions under which permits can be transferred between vessels.
 - h. Allow for new entrants into the fishery in a controlled and measured way.
 - i. Not be time limited (does not expire) to allow for certainty in the fleet, business investment, and provide both offshore and onshore businesses with stability in terms of fishery access and continuity of supply.
20. These principles aim to achieve the following outcomes, which align with the Fisheries Act (2020) objectives:
- a. Access to whelk fisheries and fleet capacity is managed to prevent unsustainable increases in fishing effort if markets and prices improve and / or effort is displaced into whelking. This should help guard against overexploitation of the resource;
 - b. The resource (whelk stocks) remains sufficient to support social and economic benefits across the different sectors of the fleet (including inshore vessels, polyvalent whelkers, and nomadic vessels);
 - c. Management of whelk fisheries is in line with the precautionary approach (with a view to moving towards an MSY approach), whereby the fishery does not remain open access and at risk of overexploitation;
 - d. Ecosystem impacts of whelk fisheries are minimised through the regulation of a sustainable pot fishery, and management of whelk bycatch in other gear types (e.g. demersal trawls, beam trawls, set nets and dredges); and

¹⁶ In economic analysis, “dependent vessels” is typically defined as at least 60% of annual income coming from that species. It is also recognised that some vessels might not meet this threshold, but whelking may still form an important contribution to their profit margin. Therefore some flexibility is required when using this terminology.

- e. Improved data collection and catch recording to deliver robust scientific evidence and inform a sustainable management regime.

21. These principles have been used to guide the design and implementation including:
- a. Determining the most appropriate way to implement a permit;
 - b. Establishing scope in terms of geographic area and fleet coverage;
 - c. Establishing eligibility criteria;
 - d. Addressing unintended consequences; and
 - e. Addressing the interface with existing IFCA permit schemes.

Mechanism

22. The design and implementation of a permit scheme is influenced by the outcomes sought. This section discusses the application and ongoing administration of the permit in line with the desired outcomes outlined above.
23. **Application:** In cases where regulators simply aim to manage the number of vessels in a fleet, permits can be allocated to a named vessel and sit separately to the vessel's licence. Alternatively, in cases where regulators are required to manage a fleet's fishing capacity (often measured in terms of vessel size and horsepower)¹⁷, permits may be attached to a vessel's licence. Throughout the FMP development and consultation there has been clear support for better management of fleet capacity to deliver long-term stock sustainability.¹⁸
24. The principal aim of the whelk permit is to safeguard stocks against unsustainable exploitation and stock collapse in line with the Fisheries Act Sustainability Objective and the Precautionary Approach.^{19,20,21} This is also reflected in the permit principles and outcomes in that the permit should "manage access to whelk fisheries and fleet capacity". This is best achieved by attaching the permit as an additional authorisation on a fishing license, allowing the license holder to fish for whelks using pots within a specified area.
25. In practical terms an additional authorisation could be added to eligible licences in a similar way to the English scallop and shellfish permits (see Annex 2 for further information). This arrangement would allow:
- a. Further management measures to be delivered through variable licence conditions;
 - b. The control of transfers between licence holders and/or vessels, and
 - c. Application to non-UK registered vessels through external waters licences. There is also precedence that this system is recognised by regulators in EU countries, which will be important for vessels which fish between UK and EU waters.

¹⁷ The amount of fish or fishing effort that can be produced over a period of time by a vessel or a fleet if fully utilised (FAO, 2008).

¹⁸ There is currently insufficient data to develop input or output controls in line with defined reference points – particularly outside 6nm – and such measures will take time to develop with industry, leaving stock vulnerable to exploitation in the meantime.

¹⁹ [Fisheries Act 2020](#)

²⁰ The "sustainability objective" is that (a) fish and aquaculture activities are (i) environmentally sustainable in the long term, and (ii) managed so as to achieve economic, social and employment benefits and contribute to the availability of food supplies, and (b) the fishing capacity of fleets is such that fleets are economically viable but do not overexploit marine stocks.

²¹ "precautionary approach to fisheries management" means an approach in which the absence of sufficient scientific information is not used to justify postponing or failing to take management measures to conserve target species, associated or dependent species, non-target species or their environment.

26. The following Administration Options have been developed to address concerns raised by some stakeholders around permits which are transferred between vessels as part of the sale of that vessel, and therefore may increase the market value of that vessel. There are pros and cons to this approach and stakeholder engagement showed differences in opinion both between and within different sectors of the fleet, however it is acknowledged that this may create an additional financial hurdle for new entrants.
27. **Administration:** To address this, the following options are available with regards to how the permit is administered:
- a. **Administration Option 1:** Once applied to a vessel's licence, the permit remains with that licence and any future transfer between licences is managed by the licence holder (in compliance with specific transfer rules, see upcoming section on 'Unintended Consequences'). For example, if the vessel is sold with the licence the whelk permit would feature in the sale. A similar approach is used for the English shellfish and scallop permits; or
 - b. **Administration Option 2:** Once applied to a vessel's licence, the permit remains with that licence until the licence holder wishes to sell their vessel, retires, or dies. The whelk permit is then removed from the licence and returned to the government. The new owner may then be offered exclusive opportunity to apply for the whelk permit (a similar approach is used to recycle or transfer permits in the Isle of Man fishery). If the new owner does not wish to use the whelk permit, it can be recycled into the pool of permits made available for new entrants each year.
28. Under both Options 1 and 2, Fishers would have certainty that if they invest in whelking, they will have access to whelk fisheries – which will be important for securing bank loans for investment in their business. Option 1 would minimise administrative burden on regulators and industry, and fishers would maintain flexibility to sell or upgrade their vessel as required. However, under this approach the permit could potentially add value to a whelk vessel or licence, which may make it more expensive to enter the fishery. This could create a particular challenge for new entrants, although this specific issue is addressed further in the paper (see section on 'Unintended Consequences').
29. Option 2 would minimise potential for the permit to accrue a market value, as it is transferred outside the sale of the vessel. However, this would create additional administrative burden for both regulators and industry. Whilst this approach should still allow for transferability, the additional administrative process may create challenges when securing bank loans for business investments. Furthermore, if there is any amount of uncertainty over future access to whelk fisheries, the value of whelk vessels may be impacted. It is also possible that by simply having exclusive opportunity to apply for a whelk permit could increase the value of a whelk vessel, therefore negating the potential benefits of this approach.

Scope

30. Whelking is a diverse fishery, with stocks fished by both small polyvalent potters and large nomadic vessels targeting whelk. A smaller proportion of landings are also recorded as bycatch in demersal trawls, beam trawls, set nets and dredges (202 tonnes in 2022). Furthermore, some vessels fish within only one jurisdiction (e.g. one IFCA area) while others fish across multiple jurisdictions in the same trip (e.g. inshore and offshore, or across national boundaries). The permit must be able to account for this variation to allow the fleet to function, whilst managing fishing activity in a sustainable way.

Gears within scope

31. The primary objective of the permit is managing fishing pressure on stocks and safeguarding against unsustainable exploitation. Since the majority of whelk landed from English waters are caught in pots (>98%), pot fisheries are the focus of this permit scheme. It is proposed that the permit applies to pot fishing only given this method accounts for the majority of whelk fishing activity. Further proactively permitting the development of a mobile gear fishery (or emergence of novel gear types, e.g. suction dredges) would likely undermine any future management measures implemented on pot fisheries, and risk unsustainable exploitation by creating additional fishing mortality.
32. There are also wider benefits associated with this approach:²²
- a. Pot fisheries are highly selective, allowing undersized animals to escape through holes / escape gaps; whilst other gear types (e.g. trawls, nets, dredges) are not selective, resulting in more discarding of undersized animals and lower discard survival rates following interactions with more damaging gear types;
 - b. Whelk pot fisheries have a low environmental impact; whilst other gear types (especially mobile, bottom-contact gears) can have a greater impact on benthic habitats, and whelk beds; and
 - c. Pot fisheries can be consistently regulated (e.g. using gear design measures and effort controls such as pot limits), it would not be possible to apply equivalent stock protection measures to other gear types.
33. While the management focus is on delivering a sustainable pot fishery, bycatch of whelks in other gears (such as beam trawls and dredges) should be closely monitored, with further management applied if required. A separate bycatch allowance could be set to allow for the landing of a small, unavoidable bycatch of whelks from mobile gear fisheries.²³

Spatial scope

34. The permit will apply to whelk pot fishing across English waters. However, regionally structured permit is likely appropriate to manage fleets in specific fishing areas. This is because both whelk stocks and whelk fisheries show distinct regional structure. Biologically speaking, whelks have a limited dispersal capacity therefore are vulnerable to localised depletion and biological traits (e.g. size of maturity) can also vary regionally. Furthermore, whelk fleets are distinctly regionalised – with under 10m vessels dominating in the southeast and south coast, whilst larger (over 12m) vessels become more prominent in the southwest, east and northwest.
35. Regionalised fisheries often benefit from a regionalised management structure, as this allows for a better understanding of fleet dynamics and fishing patterns. This is important for regional whelk fleets which vary in their fishing capacity, scale of operations, target whelk at different times of year, and may have access to many or few alternative fisheries. Economic reliance on whelking therefore varies around the country, and management which might work well in one area might not be appropriate in another. Furthermore, under a regionalised approach the knowledge of local fishers can be fed into local management decisions to ensure they are relevant, effective and have buy-in from industry.
36. A regional approach would also address concerns raised around interactions between the nomadic fleet and established regional fisheries. Nomadic vessels are often larger (>12m),

²² There is precedence for this approach in other whelk fisheries – notably in the Isle of Man and Normandy (Granville Bay) pots are the only permissible gear type. These fisheries are often praised internationally for their best-practice approach to fisheries management, with the Granville Bay fishery achieving MSC certification.

²³ Seafish analysis of whelk bycatch in other gear types is ongoing.

focus on whelking year-round and have a greater fishing capacity (carry more pots and fish more days of the year).²⁴ These vessels may therefore target whelk grounds when they would traditionally be 'rested' by local fleets (e.g. during winter months), with potential impacts on the catches of smaller operators. However, nomadic vessels make an important contribution to whelk landings and require flexibility to move between areas. They also distribute effort between stocks by moving on when catches are no longer economically viable.²⁵ Constraining nomadic vessels to certain fishing grounds could concentrate effort onto certain stocks, with both ecological and economic impacts.

37. Considering the challenges outlined above, this section explores various options and trade-offs around spatial scope. Note that the interface with existing IFCA management is discussed in a later section (see 'Interface with IFCA permits')

Options for further discussion:

38. **Spatial Option 1 (See Figure 1):** In the absence of information on whelk stock boundaries, management (and the permit) could be spatially structured by defining 'Fishery Units' (FUs) based on ICES Sub-Areas. FU definition based on ICES Sub-Areas would be practical from an administrative and enforcement perspective given current reporting requirements at the Sub-Area level. If required, more nuanced measures targeted at specific biological stocks within each FU could be overlaid in future after stocks are delineated. Given the spatial distribution of whelk fishing activity in English waters, the permit could be regionally structured as follows:
- a. Northern North Sea (ICES Sub-Area 4b)
 - b. Southern North Sea (ICES Sub-Area 4c)
 - c. Eastern Channel (ICES Sub-Area 7d)
 - d. Western Channel and Celtic Sea (ICES Sub-Area 7e, 7f, 7g, 7h, 7j, 8d)
 - e. Irish Sea (ICES Sub-Area 7a)
39. **Spatial Option 2 (See Figure 2):** A finer scale spatial structure could be adopted to accommodate the needs of different segments of the whelk fleet. For example, fisheries management in the 0-12nm zone could be tailored to the needs of smaller vessels which cannot travel as far as larger nomadic vessels, which could be accommodated further offshore. Under this approach the permit could be geographically structured as follows by taking the FUs proposed in option 1 and splitting each into inshore (0-12nm) and offshore (12nm-EEZ):
- a. Northern North Sea **0-12nm** (ICES Sub-Area 4b)
 - b. Northern North Sea **12nm-EEZ** (ICES Sub-Area 4b)
 - c. Southern North Sea **0-12nm** (ICES Sub-Area 4c)
 - d. Southern North Sea **12nm-EEZ** (ICES Sub-Area 4c)
 - e. Eastern Channel **0-12nm** (ICES Sub-Area 7d)
 - f. Eastern Channel **12nm-EEZ** (ICES Sub-Area 7d)
 - g. Western Channel & Celtic Sea **0-12nm** (ICES Sub-Area 7e, 7f, 7g, 7h, 7j, 8d)
 - h. Western Channel & Celtic Sea **12nm-EEZ** (ICES Sub-Area 7e, 7f, 7g, 7h, 7j, 8d)
 - i. Irish Sea **0-12nm** (ICES Sub-Area 7a)
 - j. Irish Sea **12nm-EEZ** (ICES Sub-Area 7a)
40. **Spatial Option 3 (See Figure 3):** A regional approach could be adopted for waters inside of 12nm, whilst waters outside of 12nm remain unsegregated to allow increased flexibility for nomadic vessels:

²⁴ Nomadic vessels can fish more days of the year as they are able to stay out in more inclement weather conditions.

²⁵ Given higher operating costs and break-even points.

- a. Northern North Sea **0-12nm** (ICES Sub-Area 4b)
- b. Southern North Sea **0-12nm** (ICES Sub-Area 4c)
- c. Eastern Channel **0-12nm** (ICES Sub-Area 7d)
- d. Western Channel & Celtic Sea **0-12nm** (ICES Sub-Area 7e, 7f, 7g, 7h, 7j, 8d)
- e. Irish Sea **0-12nm** (ICES Sub-Area 7a)
- f. English waters **12nm-EEZ** (ICES Sub-Area 4b, 4c, 7d, 7e, 7f, 7g, 7h, 7j, 8d, 7a)

41. **Spatial Option 4 (See Figure 4):** A single national permit could be implemented to allow vessels to fish for whelks across all English waters without restriction. Permits could then be structured by region in future if deemed necessary.

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Mapping Spatial Options

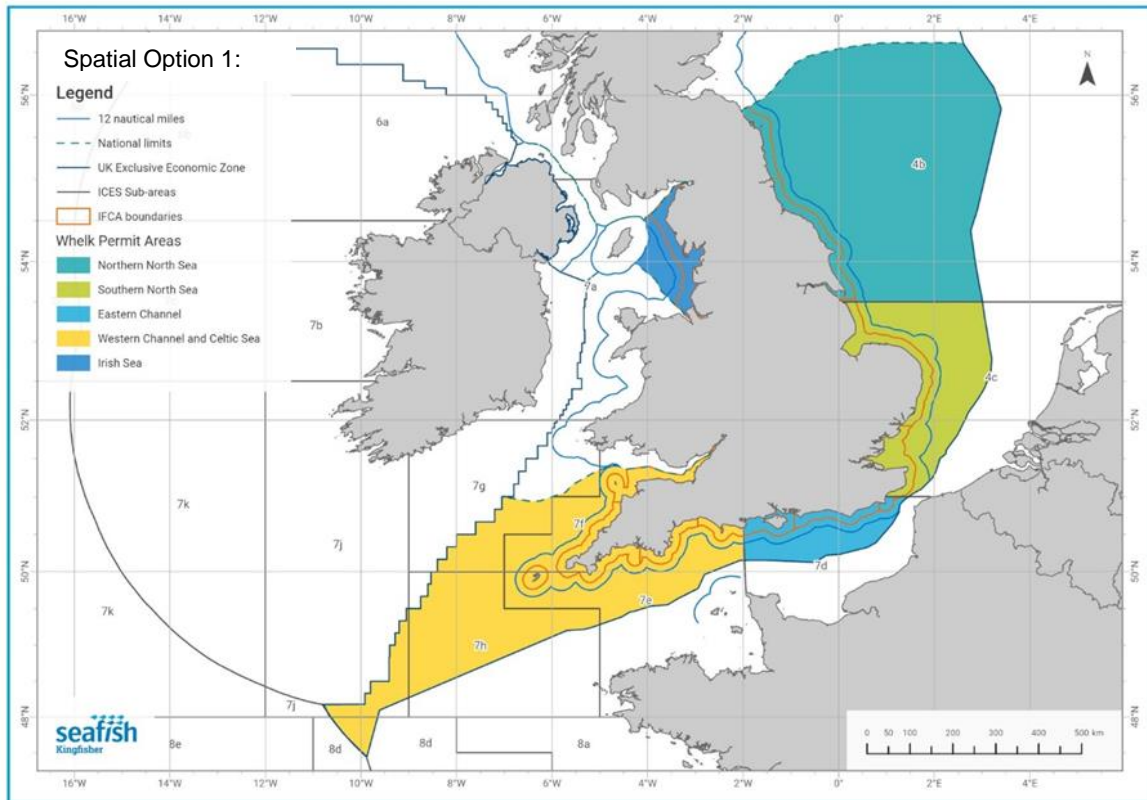


Figure 2. Map showing whelk permit spatial scope under Spatial Option 1 (regional approach based on ICES Sub-Areas).

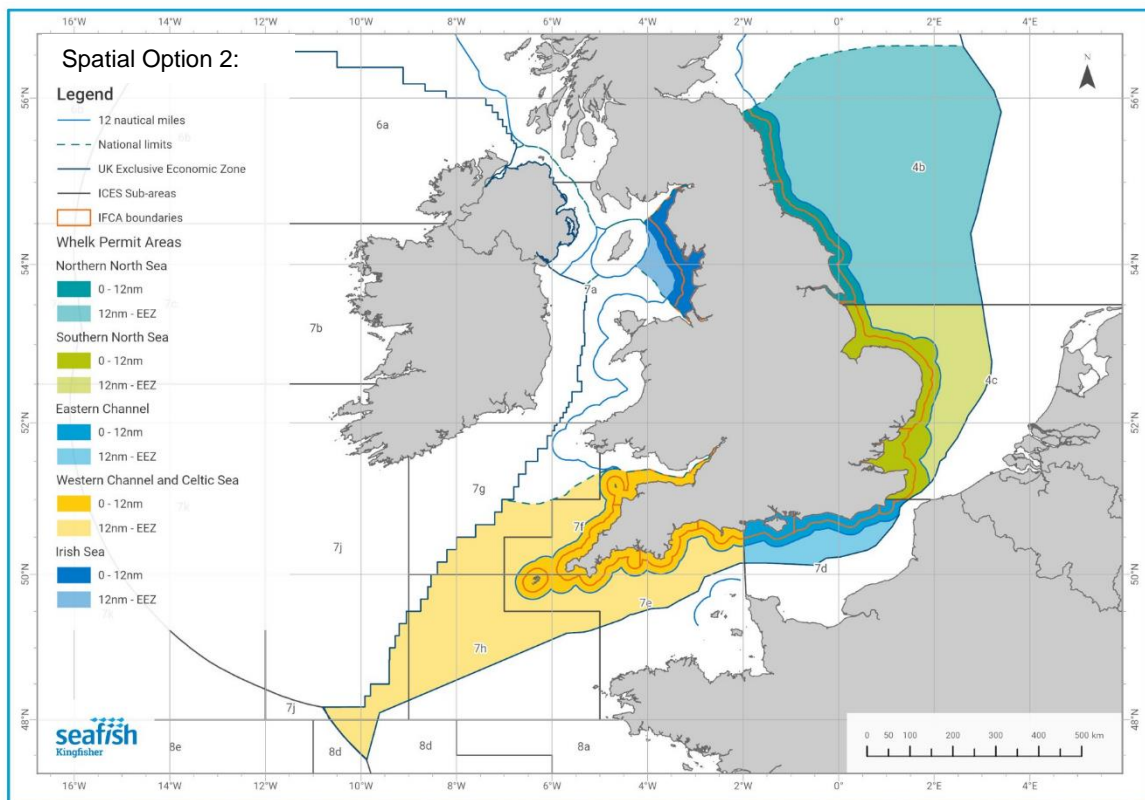


Figure 1. Map showing whelk permit spatial scope under Spatial Option 2 (regional approach based on ICES Sub-Areas and waters inside / outside 12nm).

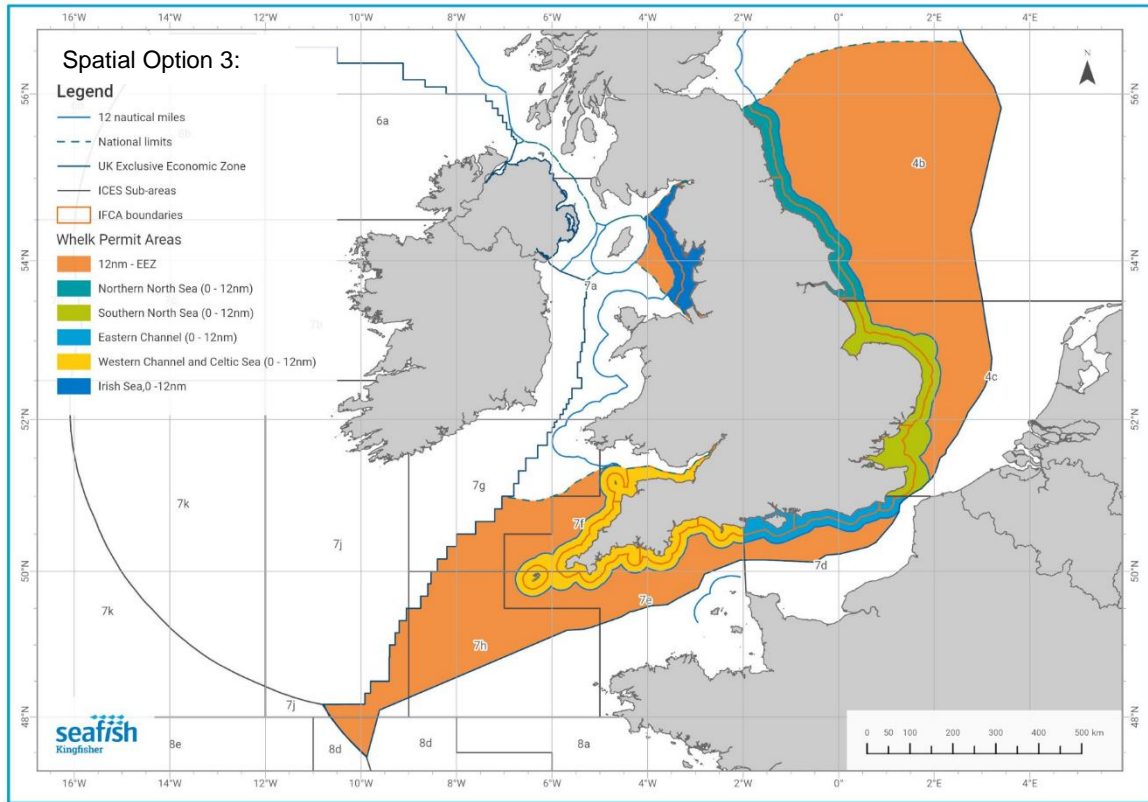


Figure 4. Map showing whelk permit spatial scope under Spatial Option 3 (regional approach based on ICES Sub-Areas, for waters inside 12nm only).

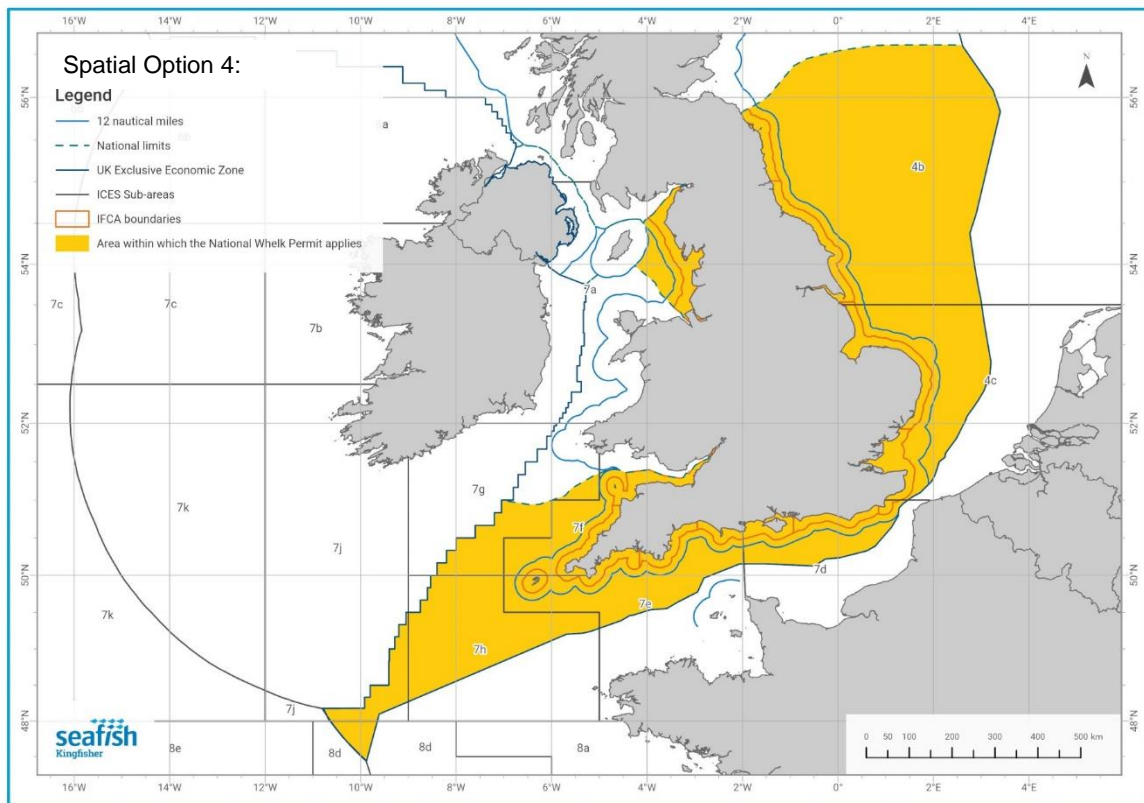


Figure 3. Map showing whelk permit spatial scope under Spatial Option 4 (blanket approach).

Evaluating Spatial Options

42. Spatial Options 1, 2 and (to some extent) 3 would better enable regulators to apply spatially specific management measures to maintain sustainable regional fisheries. Options 1 and 2 would also provide some protection to local / regional fisheries as the permit would restrict vessels from moving in and out of an area that do not hold a permit for.
43. All Spatial Options allow nomadic vessels to continue with current fishing patterns, but under Options 1 and 2 their activity could be limited to FUs within which they have previously fished, therefore reducing scope to explore new fishing grounds. This could be accommodated under an adjacent 'exploratory permit', allowing a vessel to fish an unfished area for a limited period to determine whether viable whelk grounds are present.
44. Spatial Options 2 and 3 support more nuanced management of different parts of the fleet. Differential measures (e.g. vessel size or power limits, pot limits, or closures) may be applied to delineate where and how each sector may operate. This aims to balance protection of small-scale operators with the flexibility required by nomadic vessels, however could create a complex management landscape.
45. Spatial Option 3 allows a 'business as usual' scenario for nomadic vessels, maintaining their freedom to move between fishing areas and explore new grounds outside of 12nm. This approach allows the nomadic sector the flexibility they need to operate, whilst supporting regional management inside 12nm. However, this approach does not address concerns raised around interactions between nomadic vessels and regional fisheries.
46. Spatial Option 4 allows total flexibility for all vessels, however does not deliver regional level management and does not address interactions between nomadic vessels and regional fleets. Regional management measures could be applied at a smaller spatial scale within any of these spatial options (1-4), however this approach could be less effective at controlling regional fleet capacity.

Vessels within scope

47. This permit scheme will apply to all commercial vessels fishing for whelks using pots in English waters regardless of size or nationality. This will ensure that the permit is capable of monitoring and managing total fishing effort, and that data collection can be achieved across the entire fleet to support timely evaluation of stock status.

Eligibility

48. Defining the eligibility criteria for a whelk permit is a crucial first step in moving from an open access fishery to a fishery where there is better control of fleet size and fishing activity. Setting appropriate eligibility criteria should also provide for those vessels that are most invested in and dependent on the whelk fishery.
49. The options available on eligibility range from an open-access system where any fisher may apply and receive a permit, to a track-record system where eligibility is determined by proof of whelk landings within a defined time-frame ('reference period') and/or fishing area.
50. This paper outlines and evaluates three possible options to determine eligibility:

- a. **Eligibility Option 1 – Open access approach:** An application-led system where any fisher can apply for and secure a permit. Under this option there is no limit on the number of whelk potting vessels that may be granted a permit.
- b. **Eligibility Option 2 – Deadline approach:** Any fisher capable of providing evidence that their vessel has landed more than 1 tonne of whelk using pots, up to the point of the FMP publication (14 December 2023) will be eligible to apply for a permit.
- c. **Eligibility Option 3 – Track record approach:** Any fisher capable of providing evidence that their vessel has landed more than 1 tonne of whelk using pots during a time-limited historic reference period will be eligible to apply for a permit.²⁶

Assessment of Eligibility Options

51. English whelk fisheries are currently open access and require a low upfront investment cost to enter the fishery. This means that, stocks are vulnerable to overexploitation if prices increase and/or other fisheries become less accessible / profitable (e.g. brown crab). Over the last 10-15 years the evidence indicates that the number of vessels targeting whelk has increased and decreased in line with market conditions.²⁷ As whelk prices increase more vessels are attracted to the fishery and when prices fall (absolutely or relative to other species) vessels move to fish elsewhere. This may create periods of overfishing which in turn creates risks for long-term stock sustainability, which is the primary risk that the permit is seeking to address. In doing so, the challenge is to set optimal eligibility criteria and define the whelk fleet in a way that manages fleet capacity and protects future catches for those dependent on this fishery.
52. **Eligibility Option 1: Open access approach.** Under this option eligibility for the permit would be based on an application-led system with no limit on the number applications or permits issued.
53. There is scope to refine this Option further by closing the permit scheme to new applicants after a certain date. While this could help manage spikes in fishing effort from new vessels joining the fishery the design of this variation could create a gold rush mentality with everyone applying for fear of missing out. The pros and cons of an open access approach are described below.
54. The pros of this approach are:
 - a. Allows all commercial vessels the opportunity to fish for whelk, therefore accommodating those who may wish to enter this fishery in the future. During industry discussions there were some inshore fishers who favoured the flexibility that an 'open' fishery would provide within inshore waters (0-6nm) only.
 - b. The permit would not constrain new entrants (if applications remain continuously open). This is particularly important for the inshore fleet.
 - c. Will provide accurate information on the size and capacity of the whelk fleet, which will support future management measures (if required).
55. The cons of this approach are:

²⁶ Analysis by the Seafish economics team showed that 1 tonne seems a sensible cut-off, as landings data shows a clear break between the number of vessels landing 0-1 tonne of whelk and the number of vessels landing >1 tonne. However, this could also be evaluated through further consultation with industry.

²⁷ e.g. an expansion of Asian markets saw many vessels move into whelk fisheries, whilst the re-opening of whitefish markets after Covid saw some vessels move out of whelking.

- a. It does not limit access to the fishery or address the risk of vessels moving into the fishery if prices rise, or effort is displaced from other fisheries.²⁸ Therefore this option is unlikely to address the risks of unchecked fishing pressure (unless other measures are quickly introduced). This could mean failure to protect stocks and failure to deliver on the Fisheries Act (2020) Sustainability and Precautionary Objectives.^{29,30}
- b. Creates a high risk of latent capacity which could mean that vessels will continue to move into the fishery when prices rise, and move out when prices drop and catches decline. This may create a boom-and-bust fishery which is not optimal for stock conservation or economic benefits. In boom-and-bust fisheries, effort may not drop quickly enough to maintain healthy stocks, making the subsequent rebuild more difficult, and it is more challenging to manage a fleet which is in constant flux.
- c. It does not protect whelk-dependent vessels as vessels may access the fishery regardless of whether they are dependent on whelking or have never previously targeted whelk. This in turn could mean the fishery becomes less profitable due to increased competition for the resource and reduced fishing opportunities in the future as the result of overexploitation. This could disproportionately impact smaller vessels which are less able to relocate to new fishing grounds.
- d. If fleet size is not capped, the ability to effectively manage the fishery is reduced. More severe management measures (input or output controls) may be needed to control fishing effort. This may reduce landings share and profitability for all, thus limiting social and economic benefits (undermining delivery of the National Benefit Objective).³¹ Furthermore, developing additional management measures will take time, with stocks open to over-exploitation in the interim.

56. Eligibility Option 2: Deadline approach. Under this option eligibility for the permit would be based on a deadline approach, where the number of applications is limited to only those vessel owners capable of providing evidence that they landed more than one tonne of whelk using pots up to the point of FMP publication (14 December 2023). The pros and cons of a deadline approach are described below:

57. The pros of this approach are:

- a. It would limit the availability of permits to those who have previously participated in whelk fisheries which should make it easier to manage effort expansion and the risk of overfishing compared to Eligibility Option 1. This would better support progress towards the Fisheries Act (2020) Sustainability and Precautionary Objectives.
- b. It is a less restrictive approach that is not dependent on track record, and would allow those fishers who may not satisfy track record criteria to retain access to whelk fisheries. This in turn would help reduce uncertainty across industry.

58. The cons of this approach are:

²⁸ In previous fisheries management initiatives (e.g. the shellfish entitlement) a high level of latency has made it difficult to ensure sustainable exploitation rates.

²⁹ The “sustainability objective” is that— (a) fish and aquaculture activities are— (i) environmentally sustainable in the long term, and (ii) managed so as to achieve economic, social and employment benefits and contribute to the availability of food supplies, and (b) the fishing capacity of fleets is such that fleets are economically viable but do not overexploit marine stocks.

³⁰ The “precautionary objective” is that— (a) the precautionary approach to fisheries management is applied, and (b) exploitation of marine stocks restores and maintains populations of harvested species above biomass levels capable of producing maximum sustainable yield.

³¹ The “national benefit objective” is that fishing activities of UK fishing boats bring social or economic benefits to the United Kingdom or any part of the United Kingdom.

- a. It would provide permits to those fishers who have previously participated in whelk fisheries (including during Covid) but are now no longer active participants. This creates a risk of latent capacity, which could lead to increased fishing effort and stock depletion if largely inactive vessels decide to move into whelking.
- b. More severe management measures may be needed to control fishing effort as fleets would potentially be capped at a greater capacity. This may reduce landings share and profitability for all, thus limiting social and economic benefits (undermining delivery of the National Benefit Objective). While there is scope to implement additional measures to control fishing pressure this will take time, with stocks open to over-exploitation in the interim.
- c. If latent capacity is too high, fleet capacity may be left to self-regulate (i.e. vessels move into the fishery when prices rise, and move out when prices drop and catches decline). This may create a boom-and-bust fishery which is not optimal for stock conservation or economic benefits. In boom-and-bust fisheries, effort may not drop quickly enough to maintain healthy stocks and it is more challenging to manage a fleet which is in constant flux.
- d. Could create a barrier to new entrants, unless new entrants are explicitly provided for (see upcoming section on 'Unintended Consequences'). This could particularly impact the inshore fleet which requires flexibility to move between fisheries.

59. **Eligibility Option 3: Track record approach.** Under this option the permit would be based on a track record system, where the number of applications is limited to only those vessel owners capable of providing evidence that they landed more than one tonne of whelk using pots during a time-limited reference period.

60. The length and timing of a reference period typically depends on what is appropriate for the fishery. Whelk fishing is part of a mixed fishery which means vessels can move in and out of the fishery across multiple years and therefore may not record landings each year. It may therefore be appropriate to apply a reference period which is long enough to account for this variability (i.e. multiple years).

61. Possible options with regards to reference periods are outlined below. **These are not the only options available; they are simply used here to model the benefits and drawbacks of different approaches.**

| Possible reference period options: | Rationale: |
|--|---|
| (A) 1 Jan 2016 – 31 Dec 2019 | Pre-Covid and Brexit: Those vessels that moved into whelking during periods of market instability will not be eligible. In reality, many of these 'covid' vessels have since exited the fishery following the recovery of more valuable markets (e.g. whitefish). |
| (B) 1 Jan 2016 – 31 Dec 2019 <u>and</u> 1 Jan 2022 – 31 Dec 2023 | Pre-Covid and Brexit (as above) but would also address latent capacity by limiting the permits to only those vessels which are still actively whelking. |

(C) 1 Jan 2019 – 14 Dec 2023

Most recent five years, aligning with approaches taken to define reference periods for other similar permit schemes (e.g. shellfish permit). This approach would limit the application of the permits to those fishers that have recently fished for whelks, including those who temporarily entered the fishery during Covid. This proposed track record could increase the potential for latent capacity, but may best provide for inshore vessels which move in and out of whelk fisheries more frequently.

62. The pros of this approach are:

- a. It limits the availability of permits to those who are invested and/or dependent on whelk fisheries, with reduces the risk of latent capacity and the risk of spikes in fishing effort. This in turn reduces the risk of stock depletion and associated economic impacts (in alignment with the Fisheries Act (2020) Sustainability and Precautionary Objectives).
- b. This option has precedence in the scallop fishery and in other shellfish permit schemes. It is also understood and likely to be generally well accepted by industry.
- c. Potentially less urgency to develop and implement further management measures (e.g. input or output controls) as fleet size would limited from the outset. Although this does not take account of fishing effort from permit holders increasing in line with market conditions.

63. The cons of this approach are:

- a. Fewer vessels may be eligible compared to Eligibility Options 1 and 2, reducing the fleet's flexibility to target whelks when other species are less available.
- b. It would require an appeals system to address situations where fishers are not deemed eligible. This would create uncertainty and additional admin burden for both regulators and industry.
- c. Could create a barrier to new entrants, unless new entrants are explicitly provided for (see upcoming section on 'Unintended Consequences'). This could particularly impact the inshore fleet which requires flexibility to move between fisheries.

64. Under Eligibility Options 2 and 3, an appeals process should apply, so that unsuccessful vessel operators could challenge the decision if they are not granted a permit. This is common practice and should ensure that those with valid claim to target the fishery have an opportunity for redress. The precise grounds for an appeal will inevitably be nuanced and case specific, but there should be some overarching principles guiding the appeals process.³²

65. All three options would provide a suitable mechanism to apply future management measures (if needed) and data collection requirements. Each option (if the variation on Option 1 is selected) could in theory limit future influxes of vessels by capping the number of permits available (aside from any provisions made for new entrants, upcoming section on 'Unintended Consequences'). However, the level of latency may still pose a

³² Grounds for appeal may include (but not limited to):

- a. Cases where a vessel has been recently upgraded to ensure crew safety or fleet modernisation, therefore the track record accrued by the old vessel could be considered to evaluate eligibility of the new vessel; and
- b. Cases where there is a proven financial commitment (e.g. building a new vessel) or pending financial commitment to invest in targeting whelk.

sustainability risk even if fleet size is capped. The risk of latent capacity decreases across from Eligibility Option 1 to 3.

66. The predicted number of vessels that would receive a permit (assuming 100% uptake) for each Eligibility Option are outlined below. The associated fleet capacity, measured in total Vessel Capacity Units (VCU)³³ and horsepower (kilowatts, kW), are also included as this will be a more important metric to track fishing power of the fleet:
- a. Eligibility Option 1: Not limited due to nature of proposal unless the variation on Option 1 is progressed.
 - b. Eligibility Option 2: 454 vessels (43,350 VCU; 54,810 kW)
 - c. Eligibility Option 3:
 - (A) 352 vessels (33,910 VCU; 43,130 kW)
 - (B) 114 vessels (12590 VCU; 16,400 kW)
 - (C) 327 vessels (32,400 VCU; 40,950 kW)

Managing the interface with existing IFCA permits

67. This section considers how a national permit scheme could align with existing IFCA management regimes. Some IFCAs already use permit schemes to manage and monitor activity in whelk fisheries inside 6nm. Some of these permits are whelk-specific while others are generic shellfish permits that include whelk fishing. There are generally no limits on the number of permits allocated, and pot limits (or other technical measures and vessel restrictions) are sometimes applied in tandem (see summary table of IFCA measures in Annex 1).
68. Consideration will need to be given to how a national whelk permit will interface with, and support, existing IFCA permit schemes. Wherever fisheries management changes interact with jurisdictional boundaries, the following factors should be considered. These issues are not unique to a whelk permit scheme, rather they are factors that are already widely considered by IFCAs in terms of how adjacent IFCAs operate and in how management approaches align over the 6nm line:
- a. **Clarity and ease of compliance:** Fishermen work in a complex management landscape with management regimes structured by species, vessel / gear type, and location. Alignment and communication between neighbouring jurisdictions is important to ensure effective voluntary compliance and adherence to management measures.
 - b. **Effective monitoring and enforcement:** Monitoring and enforcement is vital to controlling fishing effort. This can become complicated with different agencies assuming enforcement roles in inshore and offshore waters. As in other fisheries there will need to be strong communication, consistency, and coordination of monitoring activity.
 - c. **Ability to manage effectively given stock biology:** individual whelk stocks and fisheries across English waters will require different management approaches to ensure sustainability. Effective management should not be compromised because stock boundaries and management jurisdictions do not align.
 - d. **Ease and effectiveness of implementing management changes:** It must be possible to make timely management changes in response to changes in stock

³³ Vessel Capacity Units (VCU) = LOA * B + (0.45 * P) (where LOA is overall vessel length in metres, B is vessel breadth in metres and P is engine power in kilowatts).

status and / or fishing activity. Without this responsiveness, there is a risk of stock localised depletion if management controls are adjusted in one area and not others. This could impact whelk stocks directly and have wider socio-economic implications.

- e. **Ability for regulatory agencies to meet their statutory responsibilities:** Both IFCAs and MMO have statutory responsibilities to manage stocks sustainably, protect the wider marine environment and consider the needs of stakeholders. The whelk permit should support regulators to deliver on these responsibilities.

69. Stakeholder feedback (from IFCAs and industry alike) provided a range of views on how a new national permit could interact with existing IFCA permits. This included:

- a. An approach where a new national permit would exist alongside any existing IFCA permit; similar to existing shellfish permit arrangements.
- b. Applying a distinct separation so that the new whelk permit would only apply in the area outside 6nm.
- c. Establishing a single permit that would apply in all IFCA jurisdictions and beyond 6nm, and which would replace existing IFCA permits.

70. However, there was a clear preference from IFCAs and from some industry stakeholders that a national permit should not undermine existing IFCA management regimes or their ability to flexibly manage whelk fisheries through byelaws and permit conditions. This is important given the need for nuanced and responsive management in inshore fisheries, and the well-established route for decision making via the IFCA committees. As such the initial option to establish a single permit that would replace existing IFCA permits has not been progressed. Two options are now under consideration and are discussed below.

71. **Alignment Option 1 (see Figure 5): Duality approach.** Existing IFCA permits are retained and the national permit is implemented across all English waters (0nm-EEZ). Under this approach, a vessel would hold a national whelk permit to enable them to commercially target whelks in English waters, and retain their IFCA permit to enable fishing within the 0-6nm zone in line with any management measures an individual IFCA has proposed. This model is similar to that which already exists in other English shellfish fisheries (e.g. king scallop, crab and lobster).³⁴ The pros and cons of this approach are outlined below.

72. The pros of this approach are:

- a. Precedence with other national permit schemes (e.g. the English scallop permit and shellfish permit) means it is well understood by industry and regulators.
- b. IFCAs retain the ability to manage inshore whelk fisheries via IFCA byelaws and flexible permit conditions, as appropriate.
- c. Enables consistent data on total fishing effort at a stock-level, as data collection conditions can be consistently applied across both the inshore and offshore fleets.
- d. Supports effort management at the individual stock-level – by providing data to monitor and manage total effort, regardless of whether stocks traverse the 6nm boundary. Therefore this approach supports delivery of the Fisheries Act (2020) Sustainability and Precautionary Objectives to ensure fishing pressure restores and maintains stocks above biomass levels capable of producing MSY.

³⁴ To commercially target king scallop fisheries in English waters, over 10m vessels must hold a national scallop permit. To commercially target crab and lobster all vessels must hold a national shellfish permit. To commercially fish for these species within certain IFCA districts, these vessels may then also be required to hold a relevant IFCA permit (e.g. an IFCA shellfish or potting permit).

- e. Likely to address requirements of the UK-EU Trade and Cooperation Agreement (TCA).
- f. Provides equal fishery access, for both the inshore and offshore fleet (recognising that there are vessels which fish both areas).

73. The cons of this approach are:

- a. Perception that inshore fishers will be subject to more regulation than offshore fishers (i.e. in certain areas they will require both a national whelk permit and an IFCA permit).
- b. Existing IFCA permit holders will have to also apply for a national permit which creates an additional administrative burden, although this can be addressed somewhat in designing a simple application process.
- c. If management measures are attached to the national permit, there is a risk that the management landscape for inshore fishers could become complex. However this issue is not uncommon in other fisheries and across different IFCA area and could be further mitigated by increased collaborative amongst the management agencies.

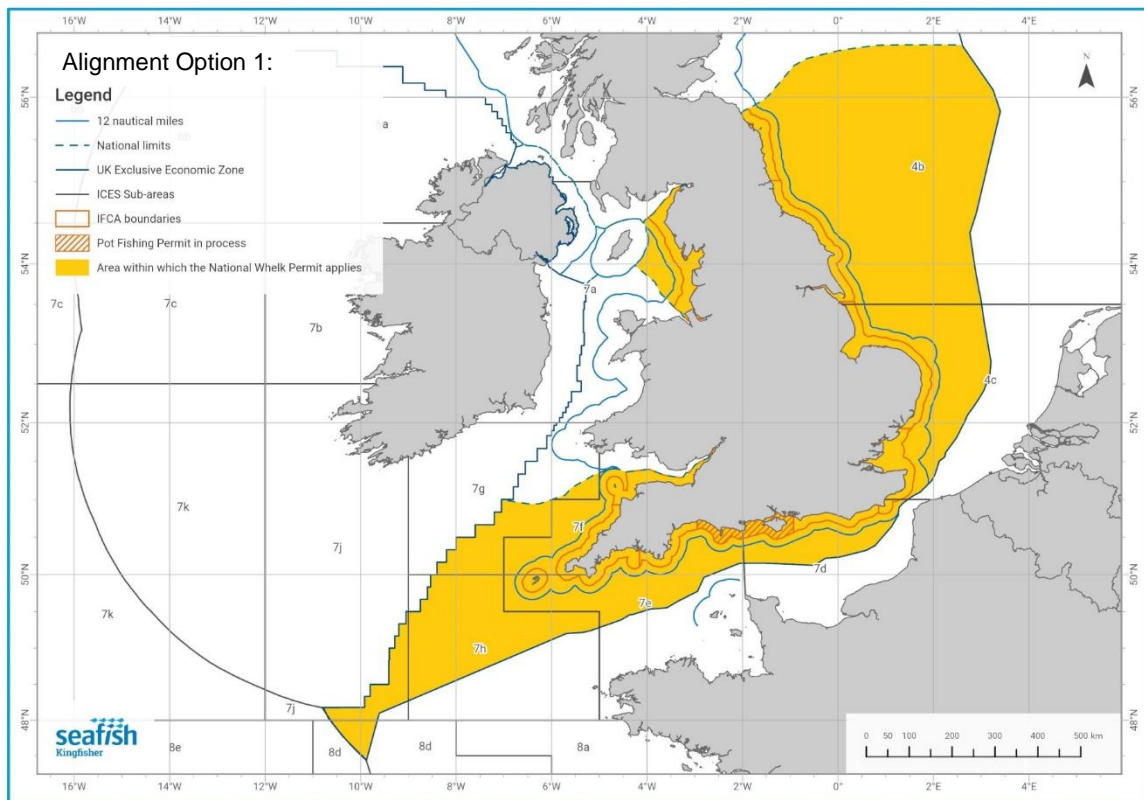


Figure 5. Map showing the spatial extent of the English whelk permit under Alignment Option 1.

74. **Alignment Option 2 (see Figure 6): Outside-only approach.** Existing IFCA permits are retained, and the national permit is implemented outside 6nm only (i.e. 6nm-EEZ) and IFCA jurisdictions currently without a whelk permit (Cornwall IFCA, Isle of Scilly IFCA, and Southern IFCA³⁵). The pros and cons of this approach are outlined below.

75. The pros of this approach are:

³⁵ Southern IFCA is currently consulting on a new potting permit.

- a. IFCA retain the ability to manage inshore whelk fisheries via IFCA byelaws and flexible permit conditions, although this would still be provided for under Option 1.
- b. National permit does not interact directly with IFCA management regimes, therefore removing the potential for additional complexity or administrative burden on inshore fishers.

76. The cons of this approach are:

- a. Operators not granted a permit could chose to target open access inshore fisheries when they might have otherwise fished offshore (e.g. by investing in smaller inshore vessels). This could create increased competition for inshore whelkers and increased pressure on inshore stocks (unless the number of IFCA permits are limited, or effort controls are applied).
- b. Not likely to address requirements of the UK-EU Trade and Cooperation Agreement (TCA).
- c. Consistent data collection across the entire fleet would be more difficult to deliver, requiring collaboration across each individual IFCA.
- d. Does not support aligned effort management across the entire fleet, which could make it more complex to deliver.
- e. Could create further complexity (and industry uncertainty) if a national permit applies in some areas that are 0-6nm and not others.

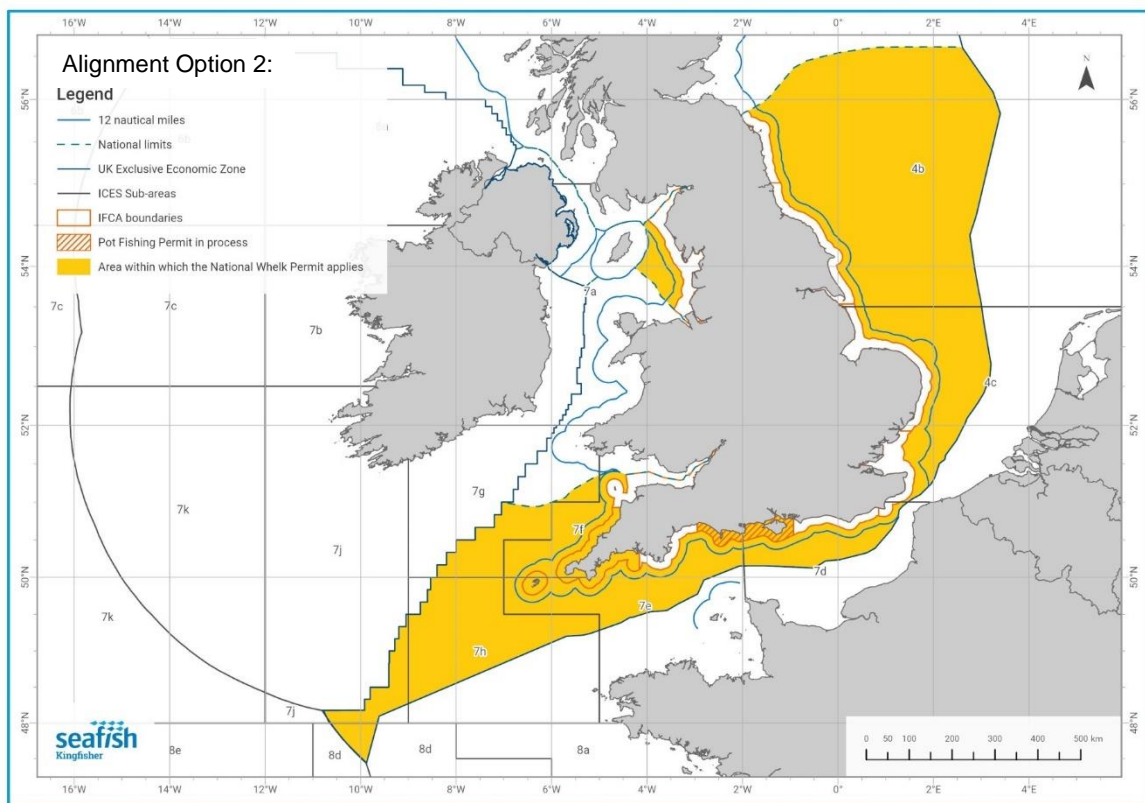


Figure 6. Map showing the spatial extent of the English whelk permit under Alignment Option 2.

77. On balance, Alignment Option 1 would be the most appropriate way to deliver the national whelk permit while maintaining the integrity and independence of the IFCAs to deliver on their inshore management responsibilities. Most importantly, it provides the greatest opportunity deliver sustainable fisheries an individual stock-level in alignment with the Fisheries Act (2020), by allowing for monitoring and control of fishing effort regardless of

whether stocks traverse the 6nm boundary. Furthermore, this Option has precedence for use in other shellfish fisheries (e.g. crab, lobster, scallop), therefore will be familiar amongst industry and regulators. IFCA's also retain their ability to go above and beyond national measures to protect inshore fleets, and deliver on the socio-economic needs of their stakeholders.

Potential unintended consequences

78. Any policy intervention risks creating unintended consequences. A summary of potential risks identified so far are described below, alongside an assessment of mitigation options available. However not everything can be foreseen and the importance of adopting a flexible and adaptive approach to decision making cannot be overstated.

Latent capacity

79. If permits are allocated to those who are no longer actively fishing for whelks, have never fished for whelks before, or fish for whelks infrequently there is a risk of creating latent capacity (unused permits which could become active again in the future). This risk has been discussed in the section on eligibility and is managed, to varying degrees, by the different eligibility options. If there is a large amount of latent capacity, there is a risk that these vessels could switch to targeting whelks when market conditions improve or alternative fisheries are less available, creating an influx of fishing pressure which risks both stock health and the economic viability of the whelk dependent fleet.

80. However, some degree of latent capacity may be inevitable and even beneficial given the polyvalent nature of whelk fleets. Many vessels switch between whelking and other fisheries (e.g. netting, crabbing), targeting whelk only when prices are high. The amount of pressure on whelks is therefore reduced when other, more profitable fisheries are available. Some amount of latent capacity could therefore allow flexibility to move in and out of whelking, which can be beneficial from an economic and environmental perspective.

81. Potential issues regarding latent capacity should be addressed through setting appropriate eligibility criteria. Across the three eligibility options, Option 3 is likely to best manage the risk of latent capacity while still providing some flexibility amongst the fleet. Alternatively there is scope to remove permits that are not being used but this is complex, burdensome and could create some perverse incentives as fishers seek to meet minimum thresholds to retain access to their permit.

Consolidation and aggregation

82. Consolidation and aggregation are defined as:

- a. **Aggregation**: permits are combined onto fewer, larger vessels with a greater fishing capacity.
- b. **Consolidation**: the number of vessels with a permit stays the same but they are owned by fewer operators, i.e. one operator owns multiple fishing vessels, each of which has its own permit.

83. There is potential for consolidation and aggregation under any permit scheme. It is therefore essential that potential risks are well understood, and strategies are developed to address key concerns.

84. **Aggregation (permits combined onto fewer, larger vessels)** can pose a significant risk to stock health as larger vessels have a higher fishing capacity – they can fish more pots

and stay out in more inclement weather (thus fish more days of the year).³⁶ Aggregation could therefore increase overall fishing effort exerted on whelk stocks in the absence of other regulatory measures. Aggregation can also have socio-economic impacts which could be perceived as either positive (e.g. increased fishing efficiency and reduced carbon emissions) or negative (e.g. employing fewer crew which reduces the economic benefit to local communities). Larger vessels may also take catches away from smaller scale operators, and profits may be drawn away from local communities. Given the importance of the whelk fishery to the inshore fleet, the socio-economic impacts are likely on balance to be negative. This risk to small inshore operators was also raised as a particular concern during the FMP consultation.

85. **Consolidation (same number of permitted vessels, fewer operators)** alone is unlikely to pose a major risk to either stock health or socio-economics of the fishery, as vessel size, fishing capacity, and numbers of crew employed should remain the same.³⁷ Consolidation can have various benefits, for example vessels are kept within the fleet that may otherwise have exited the fishery (so crew remain employed), it also promotes increased professionalism, encourages investment, and enables access to markets. However, some small operators may be concerned around the development of larger business models. There is also a risk that unmanaged consolidation could encourage aggregation: owners of multiple small vessels may be incentivised to “aggregate” those permits onto fewer, larger vessels, since economies of scale often make this a more efficient operating model.
86. It is possible to structure the permit scheme so that consolidation is permitted (in order to allow for the benefits outlined above) and but aggregation is not (in order to protect stocks from greater fishing pressure). This can be achieved by controlling the conditions under which a permit may be transferred between licences (see below).

Mitigating aggregation risks through transfer conditions

87. The proposed whelk permit scheme will see the permit issued to a specified vessel and owner. While controlling the transfer of permits will be important given the aggregation issues described above, there are certain scenarios that require a permit to be transferred between licences, such as when a vessel is sold or when an owner retires or dies. This could also assist new entrants to the participate in the whelk fishery. There are also specific situations where permits may need to be transferred to meet vessel safety requirements. Stakeholder’s have highlighted that it is important that some level of transfer is permitted to continue under a permit regime to meet these requirements while also ensuring there are effective controls in place to limit the adverse impacts of aggregation.
88. A set of rules already exist to control the transfer of permits between licences and mitigate the aggregation risk.³⁸ These rules could provide the basis for a bespoke system for whelk fisheries. For example, it could be additionally stipulated that:
- a. Permits can only be transferred between licences if a vessel is being sold to a new owner or the owner dies;
 - b. It is not possible to combine multiple whole licences from smaller vessels onto one larger vessel; and

³⁶ This may be mitigated through a limit on total fishing pressure, e.g. pot limits, catch limits.

³⁷ Consolidation can have certain benefits, for example vessels are kept within the fleet that may otherwise have exited the fishery, and their crew therefore remain employed.

³⁸ There is guidance on the MMO website that covers licensing rules. MMO guidance is split between 10m and under vessels ([Get a fishing vessel licence: 10 metres or under - GOV.UK \(www.gov.uk\)](http://www.gov.uk)) and over 10m vessels ([Get a fishing vessel licence: over 10 metres - GOV.UK \(www.gov.uk\)](http://www.gov.uk)) as there are different licensing rules dependant on the overall length of the vessel.

- c. Licenses with permits may only be partially aggregated (via current licencing rules) under specific circumstances. Partial aggregation is when a proportion of the tonnage / horsepower from one licence(s) is combined with another whole licence. This is often necessary to allow for safety related vessel improvement, compliance with the International Labour Organization's Work in Fishing Convention (ILO 188), or environmental benefits of engine replacement.³⁹

Providing for new entrants

89. In this context, a “new entrant” is defined as those looking to purchase their first fishing vessel, who are either:
- a. Entirely new to fishing;**Error! Bookmark not defined.** or
 - b. Have been fishing for several years (e.g. as a deckhand) but are not a vessel owner.
90. The permit could potentially create barriers to new entrants if:
- a. Fleet capacity is capped after permits are initially allocated (n.b. this could theoretically occur under Eligibility Options 1 (variation), 2 or 3);
 - b. A track record approach is adopted under Eligibility Option 3 (those who have never landed whelks before will likely not meet requirements); and/or
 - c. There are too few vessels with permits available to purchase, or the cost is too high.
91. Whelk fishing plays a key role in encouraging new entrants into fishing due to the relatively low upfront gear costs.⁴⁰ This is also partly a symptom of the fact that whelk fisheries are currently open access. Whilst whelking is not the only fishery available to new entrants (e.g. entry costs into netting are often lower as there are no bait expenses), it can be particularly important in certain regions where there are fewer alternative fishing opportunities (e.g. the East coast and southeast). It is therefore important that those looking to enter into fishing through whelking have the opportunity to do so, this will support investment in future fleets and help maintain coastal communities.
92. Stakeholders consider that a balance should be struck between allowing for a controlled number of new entrants and managing fleet capacity to safeguard sustainability. Finding the optimal mechanism to enable genuine new entrants to enter the fishery while managing fishing pressure is key. Two options to achieve this are scoped out below: (a) providing a limited annual allocation of permits exclusively for new entrants; and (b) recycling permits from those who wish to retire / sell their vessel.

Limited annual allocation of permits exclusively for new entrants:

93. A fixed allocation could be made available each year exclusively for new entrants. This will allow for new entrants in a controlled and measured way whilst balancing the risk of increased fishing pressure on the stock. In practice, this allocation should be consider *fishing capacity* (typically measured in terms VCU)⁴¹ rather than simply the *number of permits* made available. Further consideration is required as to how this is achieved to deliver fair opportunity across different sectors of the fleet.
94. Permits made available to new entrants each year could be based on X% of the initial fleet capacity, up to a maximum Y% increase over the first five years of the permit period up to

³⁹ [ILO Work in Fishing Convention - GOV.UK](#)

⁴⁰ Whelk pots can cost as little as one third of the price of crab/lobster pots (Haig et al. 2015).

⁴¹ Vessel Capacity Units (VCU) = LOA * B + (0.45 * P) (where LOA is overall vessel length in metres, B is vessel breadth in metres and P is engine power in kilowatts).

an agreed limit. Percentage allowance may be calculated following initial allocation of permits to ensure that the provision is reasonable for both stocks and fleets. New entrants would apply to MMO to receive a permit, which can be allocated either on a 'first come first serve' basis or by evaluating fishing plans submitted by applicants (as is done in the Isle of Man), however it is acknowledged that the latter approach could be difficult to administer.

95. The allocation set aside for new entrants may initially be moderate, then as more information becomes available on how much fishing pressure stocks can sustain, adjustments can be made accordingly. In the interim, decision-makers must be responsive and use best-available information. If evidence becomes available suggesting that current fishing pressure is too high, the allocation for new entrants should decrease or be frozen until the health of the fishery improves.

Recycling permits from those who wish to retire / sell their vessel:

96. Vessel owners could be required to return their permit to the government when they die or retire *and* the vessel is no longer in use (e.g. it is decommissioned). Over time, the fishing capacity associated with permits returned to the government could be recycled and made available to new entrants. N.b. This will likely provide a small contribution to the pool of permits available for new entrants.

Providing wider access

97. The issue of access being made available to non-permit holders in the future has also been considered. This is in the context of non-permit holders being able to enter into whelking to diversify their fishing opportunities. There are benefits associated with diversification; it can distribute fishing pressure across different species and can provide other fishing opportunities if target fisheries are under pressure. The counter to this is that it can increase fishing pressure to the detriment of existing permit holders and may lead to additional management measures constraining catches.
98. The appropriateness of some fishers having permanent access to a resource that is closed to others could also create equity and fairness issues. Equally, if a stock is under pressure and permit holders make adjustments to allow the stock to rebuild, providing access to other parties to reap the benefits is likely also problematic. The question is whether future access can be provided without impacting stock sustainability or local/national socio-economic outcomes.
99. The choice of Eligibility Option can influence the scope for future access. Under Option 1 there will be no constraint as any vessel owner can apply for a permit, while Option 3 would be the most restrictive. If there is a desire to provide some level of future access to the whelk fishery (beyond Option 1) then possible considerations could be:
- a. If the annual allocation of permits for new entrants is not fully taken up, then regulators could consider allocating any left-over capacity to other fishers looking to enter into whelking; or
 - b. If information becomes available to suggest that whelk stocks can sustain additional fishing pressure, beyond the capability of the permitted fleet then there could be scope to issue new permits via a new application process.

Other potential impacts of the proposed changes

100. There are various benefits and challenges associated with the introduction of a whelk permit. Benefits are explored in detail in the 'Rationale' section above, and a number of distinct challenges have been explored in the section on 'Unintended Consequences'. There are various other ecological and socio-economic challenges to consider – however, it should be noted that there is significant interplay between the two.

Ecological impacts

101. Whelk fishing with pots is widely considered a low-risk fishery in terms of ecological impact. Under Eligibility Options 2 and 3, effort that might have been displaced into whelking (e.g. if crab fisheries declined) could be displaced into other fisheries and/or other areas. This could put other stocks of other species under increased pressure. There is a risk that fishers could explore other, potentially more ecologically damaging gear types, in order to catch whelks outside of the permit. Landings / bycatch of whelks from other gear types should be managed to mitigate the risk of increased effort in these fisheries.⁴²

102. Under Eligibility Options 2 and 3, the whelk permit would prevent future expansion of fishing effort through new vessels entering the fishery thus reducing the risk of future overexploitation. This is an essential first step towards controlling fishing effort whilst maintaining economic viability (profitable levels of catches) for those invested in the fishery. However, a permit alone would not necessarily prevent increased fishing effort from those within the permit scheme unless complementary measures (e.g. input or output controls, or seasonal closures) were attached to the permit.

103. Whelk stocks are increasingly being impacted by warming waters because of climate change, therefore human pressures must be carefully managed to ensure stocks can withstand multiple stressors.⁴³

Socio-economic impacts

104. Socio-economic impacts will vary depending on which design option is chosen. Eligibility Option 1 will likely have minimal socio-economic impacts and can be considered 'business as usual' at least initially. However, under Eligibility Option 1 there could be increased socio-economic risk to whelk-dependent vessels, which may have fewer alternative fisheries available to them, if additional vessels enter the fishery during times of high productivity or good whelk prices, or if restrictive management measures are applied in the future to limit fishing effort.

105. In contrast the more restrictive nature of Eligibility Options 2 and 3 could have greater socio-economic impacts (both positive and negative). Assuming the whelk permit acts as the basis for improved effort management, there should be significant long-term economic benefits as fishermen will have more certainty that stocks will not suddenly experience overexploitation and fisheries become unviable. This provides improved business certainty and employment security for both offshore and onshore operators, allowing room for expansion and investment into the future. Such benefits would likely only be realised if the permit is not time specific; if the permit were to be time-limited then the lack of long-term certainty may mean fishermen and businesses would be more reticent to invest in the fishery.

⁴² Seafish analysis of whelk bycatch in other gear types is ongoing.

⁴³ K&E IFCA Whelk Mortality Event 2022.

106. In the short-term, Eligibility Options 2 and 3 could disadvantage certain parts of the fleet – vessel operators who are fishing for whelk that do not meet the permit eligibility criteria or those parts of the wider shellfish fleet that have previously considered moving into the whelk fishery. There could also be wider socio-economic impacts for coastal communities and supply chain businesses. These may include:
- a. Emerging conflict in communities over who receives a permit and who does not.
 - b. Reduced fishing opportunities for fishermen that fail to secure a whelk permit (whelk is often part of an annual fishing plan, even for vessels which would not be considered 'whelk-dependent', therefore if fishermen lose the ability to fish for whelk it could impact on vessel viability and overall profitability).
 - c. Requiring fishermen to apply for a permit so that they can continue to operate will create an additional administrative burden. It could also be a source of stress and uncertainty while waiting for their application outcome.
 - d. Permits could become concentrated in certain geographical areas which could negatively impact certain coastal communities where fewer permits are available. This could be mitigated by making the permit more regionally specific.
 - e. Potential impacts on onshore processing operators if the number of whelk fishermen in an area decline causing the volume of product available to drop.
 - f. There is the additional risk under Eligibility Option 3 that those fishermen who are not granted a whelk permit (whether they are currently whelking or new entrants) may be driven to fish illegally.

Monitoring

107. Monitoring implementation of, compliance with, and efficacy of the whelk permit scheme will require a joined-up approach between Defra, MMO, and IFCA's. Collaborative design of the permit scheme should consider ongoing monitoring and enforcement to ensure that resulting legislation is workable and effective.

Assessing effectiveness of proposed measures

108. As the purpose of the permit is to limit fishing pressure so that mortality is in line with levels to deliver long-term stock sustainability, a combination of landings and fishing activity data could be used to define fleet activity and to assess the likely pressure on whelk stocks. Until an appropriate stock assessment methodology is place with associated HCRs it will be difficult to determine with confidence the impact that fishing pressure is having on the stock. If the implementation of the whelk permit coincides with a long-term data collection programme then in time the relationship between fishing pressure will be understood.
109. In the interim whelk landings may be monitored through MMO fishery statistics data, collected on a trip-by-trip basis through the MMO Catch App (vessels 10m and under), paper logbooks (10-12m vessels), and eLogbooks (vessels over 12m). Fishing activity, including positional data, can be monitored using VMS and iVMS (when available).
110. Long-term economic benefits can be monitored by tracking economic indicators, through Seafish economics annual fleet surveys and biennial processor surveys. The Seafish fleet survey collects primary data from a sample of the fleet based on vessel characteristics and activity. These data are then scaled up using supplementary MMO data to give an overall picture of economic performance of every vessel in the fleet. This would allow for data applicable to vessels within the whelk permit scheme to be analysed

over time. However economic performance is influenced by a number of factors and not just a single management measure.

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