EXPLANATORY MEMORANDUM TO

THE FAL & HELFORD DESIGNATED AREA (FISHING RESTRICTIONS) ORDER 2008

2008 No. 2360

1. This explanatory memorandum has been prepared by Defra and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

2. Description

2.1 This Order prohibits dredging and demersal trawling in the outer area of the Fal & Helford Special Area of Conservation (SAC). The aim of the Order is to protect important marine habitats and features found within the SAC including maerl beds, eelgrass beds, sandbank, large shallow inlets and bays, reefs, and estuaries. The order will also allow the United Kingdom to comply with its obligations under the Habitats Directive and implementing domestic legislation.

3. Matters of special interest to the Joint Committee on Statutory Instruments

3.1 None

4. Legislative Background

4.1 The Falmouth Bay seabed was mapped for Habitats Directive features in 1995. The Fal and Helford SAC was then identified as a candidate SAC in 1996 under the Habitats Directive and subsequently designated for a number of habitats and features. Responsibility for the inner, estuarine parts of the area lies with the Environment Agency (EA), whilst the Cornwall Sea fisheries Committee manage the outer part of the SAC. Defra is also a Competent and Relevant Authority for the area. Scallop dredging and demersal trawling has been banned in the inner, estuarine parts of the SAC since October 2003 under the EA bye-law 'Fal and Helford Sea Fisheries District Methods of Fishing (Dredges) Byelaw'.

4.2 There is currently a voluntary agreement in place restricting the amount of dredging activity in the area to 15 days a month in November and December. This Order will replace this agreement, providing enforceable protection to the area for the whole year.

5. Territorial Extent and Application

5.1 This instrument applies to England.

5.2 The SAC lies in Statistical rectangle 29E4 in area VIIe as defined by the Council for the Exploration of the Sea (ICES). The co-ordinates for the area are delineated by a designated area seaward of lines drawn:

(i) across the Helford River, on a bearing of 195° true from Mawnan Shear to a point on the opposite shore; and

(ii) across the River Fal (Carrick Roads), from the southernmost extremity of Pendennis Point to the lighthouse at St Anthony Head; and

within a line drawn between Zone Point and Manacle Point. The positions for these two points are: Zone Point 50 08.3N; 005 00.5W and Manacle Point 49 56.9N; 004 42.7W.

6. European Convention on Human Rights

6.1 As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

7. Policy background

7.1 Defra and Sea Fisheries Committee are relevant authorities under the SAC Management Plan and have obligations to protect the SAC under the Habitats Directive and domestic implementing legislation, the Conservation (Natural Habitats), & Council Regulations 1994.

7.2 The Fal and Helford candidate SAC was identified in 1996 under the Habitats Directive and has subsequently been designated for a number of priority habitats and features. The features include sandbanks and maerl bed communities. Beds of maerl, (the collective name for several species of calcified red seaweed) are of particular value because of the diversity of species they may support.

7.3 Historically, fishing activity in the Fal & Helford Bay has been low. In 2006, however, significant increase in scallop dredging in the Bay led to calls for greater protection of the SAC. Cornwall Sea Fisheries Committee with the help of the local fishing community developed a Voluntary Agreement, which has provided a substantial degree of protection to the SAC throughout 2007 and 2008 through limited scallop dredging activity in the months of November and December only.

7.4 In January 2008, Jonathan Shaw announced his decision to close the Fal and Helford Special Area of Conservation (SAC) to scallop dredging through the implementation of a Statutory Order. Defra carried out a six-week consultation to assess any unanticipated consequences of the proposed closure to the industry. In addition, Cornwall Sea Fisheries Committee, with support from Defra, is considering introducing a bye-law to establish an experimental Marine Protected Area (MPA) in the outer SAC area for the purposes of assessing and managing the scallop stocks within it. The byelaw will prohibit all forms of scallop harvesting, including by diving. This EM relates only to the SI, not the proposed bye-law.

8. Impact

8.1 A Regulatory Impact Assessment is attached to this memorandum.

8.2 The impact on the public sector is expected to be minimal. The Defra consultation has not revealed any significant economic upset to the sector. The policy will be reviewed in 2010 and we expect to have more evidence on costs incurred by the local fishing industry as well as quantified benefits in light of the new conservation measures introduced by the Statutory Instrument Order.

9. Contact

Joanna Messini at the Department for Environment Food and Rural Affairs
Joanna.messini@defra.gsi.gov.uk can answer any queries regarding the instrument.

Summary: Intervention & Options

Department /Agency:	Title:	
Department of Environment Food and Rural Affairs	**Impact Assessment of a fisheries closure in the outer area of the Fal and Helford Special Area of Conservation (SAC)**	
Stage: Final	**Version:** V.3	**Date:** 15 August 2008
Related Publications: Scientific reports listed in Annex B		

Available to view or download at:

http://www.

Contact for enquiries: Morwenna Carrington **Telephone:** 020 7238 4659

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

The Fal and Helford Special Area of Conservation (SAC) is designated to protect important marine habitats and species, which are: maerl beds; eelgrass beds; sandbanks; large shallow inlets and bays; reefs; and estuaries. Scallop dredging in the SAC damages these features and therefore impacts negatively on their conservation value. Despite there being some protection under an existing Voluntary Agreement that restricts scallop dregging, our scientific advice is that this is not sufficient to be sure those habitats are not being damaged, only

What are the policy objectives and the intended effects?

The objectives are:

1) To maintain or enhance the conservation value of the site,

2) To provide enforceable protection to the outer SAC all year round against scallop dredging and demersal trawling, and

3) To mitigate the risk of infraction proceedings for failing to protect the site under UK obligations arising from the Habitats Directive

What policy options have been considered? Please justify any preferred option.

Two options were considered; Option 1: Do nothing/status quo (based on the current Voluntary Agreement continuing), and Option 2: Closing the outer area of the Fal and Helford SAC to scallop dredging and bottom trawling by Statutory Instrument. The inner areas of the SAC are already protected by an Environment Agency bye-law. Option 1 was used as the baseline against which to assess the costs and benefits of Option 2. We consulted on the impacts of the closure under Option 2 in terms of the effects on businesses, unintended or unanticipated consequences, fisheries displacement issues, and the achievement of conservation objectives, etc. This is the recommended option as, in addition to the environmental benefits, not taking action would mean we would face a high risk of successful

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

Responsibility for monitoring the SAC every 6 years lies with Natural England and Cornwall Sea Fisheries Committee. The next review of the SAC is due in 2012.

Ministerial Sign-off For consultation stage Impact Assessments:

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

Signed by the responsible Minister:

Jonathan Shaw

.....Date: 26th August 2008

Summary: Analysis & Evidence

Policy Option: 1	Description: **Closure of the Fal and Helford SAC to scallop dredging and bottom trawling.**

COSTS

ANNUAL COSTS	
One-off (Transition) **Yrs**	Description and scale of **key monetised costs** by 'main affected groups' The direct costs include only the direct costs on the 8 fishing vessels currently permitted to fish in the outer SAC under the terms of the Voluntary Agreement. The cost in the first year is estimated to be £275. Thereafter, it is assumed that the fishermen will use alternative fishing grounds and the annual cost will be zero.
£ 275	
Average Annual Cost (excluding one-off)	**Total Cost** (PV) **£ 275**
£ 0	

Other **key non-monetised costs** by 'main affected groups' The activities of a number of local vessels will be affected. At present they rarely fish in the outer SAC and this policy will remove the option for them to increase activity here in the future. Potential indirect effects include increased fuel expenditure from travelling further to fishing grounds elsewhere and they may face a potential safety issue if, following closure, they operate in bad weather conditions outside the shelter of the SAC. Additional monitoring costs are expected to be minimal.

BENEFITS

ANNUAL BENEFITS	
One-off **Yrs**	Description and scale of **key monetised benefits** by 'main affected groups'
£	At present it is not possible to monetise the benefits.
Average Annual Benefit (excluding one-off)	**Total Benefit** (PV) **£**
£	

Other **key non-monetised benefits** by 'main affected groups' The cessation of scallop dredging under the Voluntary Agreement and SAC designation will prevent further environmental damage from being caused to the seabed. The habitat is expected to recover and there will be benefits for other users of the Fal and Helford marine environment, e.g. static gear fishermen, scuba divers, anglers, and potentially the local

Key Assumptions/Sensitivities/Risks Expert advice suggests that scallop dredging is the key cause of environmentally damaging activity in the SAC and therefore it is assumed that prevention will lead to environmental improvements. Whilst there is no evidence of fishing by other towed bottom gear in the SAC, these will also be prohibited in the SI as a precaution. The direct costs to industry are calculated against the baseline that the Voluntary Agreement holds and are an upper bound estimate. Based on expert advice, enforcement of the policy is assumed to fall under existing CSFC activity at no additional cost.

Price Base Year	Time Period Years	**Net Benefit Range** (NPV) **£**	**NET BENEFIT** (NPV Best estimate) **£**

What is the geographic coverage of the policy/option?	Fal and Helford SAC
On what date will the policy be implemented?	1 October 2008
Which organisation(s) will enforce the policy?	MFA and CSFC
What is the total annual cost of enforcement for these organisations?	£ 0
Does enforcement comply with Hampton principles?	Yes

Will implementation go beyond minimum EU requirements?			No	
What is the value of the proposed offsetting measure per year?			£ NA	
What is the value of changes in greenhouse gas emissions?			£ NA	
Will the proposal have a significant impact on competition?			No	
Annual cost (£-£) per organisation (excluding one-off)	Micro **N/A**	Small **0**	Medium **0**	Large **0**
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices) (Increase - Decrease)

Increase of £ Decrease £ **Net Impact** **£ 0**

Key: **Annual costs and benefits:** **(Net) Present**

Evidence Base (for summary sheets)

Consultation Impact Assessment of Closure of the outer Fal and Helford Special Area of Conservation (SAC) to scallop dredging and other demersal trawling

Introduction

1. The Fal & Helford Special Area of Conservation (SAC) is an area of sea and sea-bed within Falmouth Bay off the south-west coast of England. At present a Voluntary Agreement limits dredging activity in the area, however the Government's nature conservation advisor, Natural England, has advised that the continuation of the use of towed demersal gear in the outer area of the SAC is not compatible with its designation as an SAC and is necessary to protect the designated features within it. The inner areas of the SAC are already protected under an Environment Agency bye-law.

2. This final Impact Assessment (IA) has been prepared to make an assessment of the impact, in terms of costs and benefits, of the proposed Statutory Instrument banning scallop dredging and other towed bottom gear in the outer part of the Fal & Helford SAC. This Impact Assessment follows the public consultation that took place between 7 March and 18 April 2008. A summary of responses to this consultation was published on [date] August 2008 and is available at http://www.defra.gov.uk/corporate/consult/etc. [to be completed on publication of the summary of consultation responses]

Rationale for Government intervention

3. Government intervention is required to ensure an improved outcome for society and the environment. Without intervention, commercial pressures would lead some fishers to continue to pursue activities without adequate regard for the wider costs (on the environment and other users of the marine environment) of their actions. Fishers and the general UK public derive benefits from the designated features within the SAC and the ecosystem goods and services that they provide. If fishing with towed demersal and scallop fishing gears continues then the benefit from ecosystem services would diminish. Thus, intervention is necessary to ensure protection of a valued resource.

4. The Government's vision for fisheries is set out in *Fisheries 2027, a long-term vision for sustainable fisheries*. In this publication, the Government indicated that its overall priority for fisheries management is to get the best possible long-term economic benefits for society through effective management and moderate levels of exploitation, within the following two constraints:

    - Fishing is managed according to an ecosystem approach, including use of the precautionary approach to make sure that healthy ecosystems are maintained and rare, vulnerable or valued species and habitats protected. This means more environmental protection than before, especially in the context of climate change and the need to increase the resilience of the marine environment.

- Access to fisheries continues to be available to small-scale fishing vessels, even if in some cases that is not the most economically efficient way of harvesting the resource. This is because the wider economic, social and environmental benefits of small-scale fishing can outweigh the comparative inefficiency in harvesting the resource and make a significant economic and social contribution to the lives of individuals and coastal communities, for example, by providing jobs, attracting tourists, providing high quality fresh fish and maintaining the character and culture of small ports throughout England.

  (*Fisheries 2027, a long-term vision for sustainable fisheries*, p.6)

5. The Government considers intervention is necessary within the SAC to ensure fisheries are managed within the above two constraints to ensure the best measures are adopted to protect the designated features within the SAC. Whilst Government is committed to supporting small-scale fishing vessels and the coastal communities they support, using certain towed mobile gear in the SAC is considered not to be sustainable as its environmental impact is unacceptable.

Legal Position

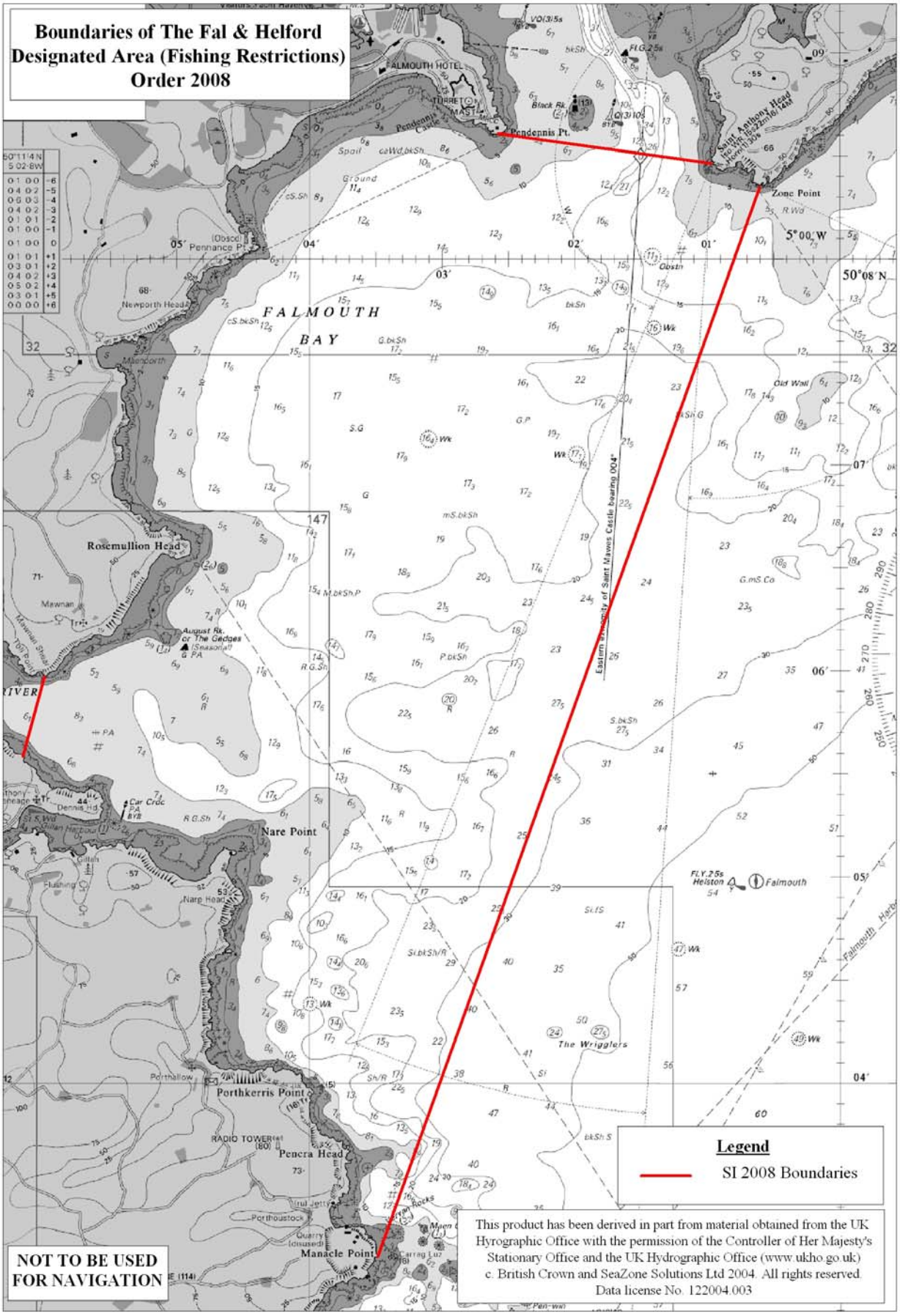
6. In May 1992 member states of the European Union adopted the Council Directive 92/43/EEC on the conservation of Natural Habitats and Wild Fauna and Flora. This is more commonly referred to as the Habitats Directive. The Directive has the primary objective of promoting the maintenance and restoration to a favourable conservation status of specified rare, threatened, or natural habitats and species that are of importance on a European basis. These species and habitats are listed in Annex I and II of the Directive respectively. Member states are expected to achieve the objectives of the Directive through the designation of sites of particular importance. The designation of a site confers the title “Special Area of Conservation” (SAC). The requirements of the Habitats Directive have been transposed into UK legislation through the Conservation (Natural Habitats &c.) Regulations known as the Habitats Regulations. The Regulations place a general duty on all statutory authorities exercising legislative powers and statutory duties to perform these in accordance with the Habitats Directive.
7. The UK authorities (Defra and the Sea Fisheries Committees) are obliged under Article 6(2) of the Habitats Directive and our domestic implementing legislation – the Conservation (Natural Habitats, &c.) Regulations 1994 – to protect SACs by taking appropriate steps to avoid the significant deterioration of habitats and the disturbance of species for which the SACs have been designated.
8. Under Article 6(1), Member States are under a duty to establish conservation measures, including management plans if need be, specifically designed for the ecological requirements of the SAC and required to establish the necessary conservation measures that might apply to the restoration or maintenance, at a favourable conservation status, of the natural habitats for which the site is designated. Article 6(1) envisages that a wide range of statutory, administrative and contractual tools may be used for management. It is this suite of obligations that creates a significant risk of triggering EC infraction proceedings in the case of the Fal and Helford SAC.
9. Where we consider it necessary, we are also obliged under Article 3(3) to improve the ecological coherence of the site.

Competent Authorities

10. The fishery within the Fal & Helford SAC is managed by two Competent Authorities. Responsibility for the inner, estuarine parts of the area falls to the Environment Agency (EA), whilst the Cornwall Sea Fisheries Committee (CSFC) manages the outer part of the SAC. Defra is also a Competent and Relevant Authority for the area. Within its jurisdiction, the EA prohibited mechanical scallop dredging in October 2003 to protect the SAC features, which contain some of the most developed and extensive maerl beds in England and Wales[i].

Policy objectives and intended effects

11. The proposed measure to close and protect the outer area of the SAC will take the form of a Statutory Instrument[ii], under sections 5, 5A and 15(3) of the Sea Fish (Conservation) Act 1967 (a); the objective of which is to close the outer SAC to scallop dredging and bottom trawling. This will align protection in the outer SAC with the inner SAC where dredging has been banned since 2003. The outer boundary of the SAC is a line drawn between Zone Point and Manacle Point (see chart below). For the purposes of the Statutory Instrument, the outer part of the SAC in Falmouth Bay is called the “Designated Area”. The closure will protect the features in the SAC designated under the Habitats Directive.


Boundaries of The Fal & Helford Designated Area (Fishing Restrictions) Order 2008
FALMOUTH BAY
Pendennis Pt.
Zone Point
Saint Anthony Head
Pennance Pt.
Newporth Head
Rosemullion Head
Nare Point
Porthkerris Point
Pencra Head
Manacle Point
The Wrigglers
Falmouth
Eastern boundary of Saint Mawes Castle bearing 004°
5°00'W
50°08'N
Legend
SI 2008 Boundaries
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The options

Option 1: Do nothing

12. Doing nothing would leave the Voluntary Agreement in place. Compliance with the agreement is high and only limited scallop dredging currently takes place within the SAC. The main risk of doing nothing is therefore that some of the conservation benefits envisaged by the designation of the area as an SAC would be foregone. There is a residual risk that the Voluntary Agreement breaks down, leading to an increase in fishing in the SAC and extending the activity into areas currently protected by the agreement. There is also a risk that vessels not signed up to the Voluntary Agreement would scallop dredge in the area.

13. In addition, the UK would put itself in breach of its obligations under the Habitats Directive. If infracted, substantial resource costs would be incurred in handling the infraction case, in putting in place mitigation or reparatory measures required to satisfy the European Commission, and ultimately in fines if deemed sufficiently serious by the Commission.

14. The main benefit of doing nothing would be that vessels subject to the Voluntary Agreement could continue to operate as normal without incurring any additional costs. Maintenance of the Voluntary Agreement would have a positive effect on the relationship between Government and the fishing industry and encourage the industry to continue to work with Government to agree to voluntary restrictions.

15. As the risks clearly outweigh the benefits, Option 1 was not considered as part of the public consultation. However, the costs and benefits of doing nothing form the baseline against which Option 2 (closure of the outer SAC) was measured.

Option 2: Closure of the outer SAC to scallop dredging and other towed bottom gear by Statutory Instrument

16. This option is based upon the advice provided to Government by Natural England. It offers a high degree of protection to the site and the designated features within it and better fulfils the Government's obligations under the Habitats Directive. The costs and benefits of this option are considered in more detail in the section on costs and benefits below.

Evidence Base

17. In proposing the Statutory Instrument as drafted, the Government has had to establish, based on expert advice, that scallop dredging and other towed bottom gear has a negative impact on the features in the SAC designated under the Habitats Directive. The impact of the closure of the recommended area on the fishing industry that operates in the outer SAC has also been analysed and sufficient data collected to allow a comparison of the costs and benefits of closure. Evidence on the impacts, costs, and benefits of the recommended closed area is set out below.

Designation of the Fal & Helford SAC

18. Falmouth Bay seabed was mapped for Habitats Directive features as part of a baseline survey in July 1994[iii]. In particular, the survey aimed to map the distribution of living and dead maerl in the estuary and Falmouth Bay to provide data for English Nature. The results of this survey showed that living maerl was most abundant in the Fal Ruan estuary with only small fragments recorded from the other areas. Falmouth Bay was predominantly sedimentary with the sediment mainly dead maerl or maerl derivatives. Maerl, a calcareous alga, forms large beds on the surface of sediment where the living maerl occurs in shallower water depths than the dead material. Living maerl beds are a fragile habitat and have a high conservation value. Mapping the distribution of living and dead maerl forms a very useful basis for making decisions on the best approach to managing the living resource.

19. The Fal and Helford SAC was submitted to the European Commission as a candidate SAC under the Habitats Directive in 1996 and subsequently designated for a number of habitats and features[iv v]. The SAC was initially selected for a number of Annex I habitats as listed in the EU Habitats Directive. These are:

    - Sandbanks which are slightly covered by seawater all the time. This is a sheltered site on the south-west coast of England, with a low tidal range and a wide range of substrates resulting in biologically one of the richest examples of sandbanks in the UK. Sub-littoral sandbanks are present throughout much of the ria system and Falmouth Bay. There are particularly rich sub-littoral sand invertebrate communities with eelgrass *Zostera marina* beds near the mouth of both the Fal and Helford and in some channels of the rias, such as the Percuil River and Passage Cove. Of particular importance are the maerl (*Phymatolithon calcareum* and

Lithothamnion corallioides) beds that occur in the lower Fal on St Mawes Bank, and the extensive areas of maerl gravel which extend throughout the Carrick Roads and Falmouth Bay. These are the largest beds in south-west Britain and harbour a rich variety of both epifaunal and infaunal species, including some which are rarely encountered, such as Couch's goby *Gobius couchi*.

- Mudflats and sandflats not covered by seawater at low tide
- Large shallow inlets and bays. This site is a ria system in south-west England that supports a wide range of communities representative of marine inlets and shallow bays. The rias of the Fal and Helford have only a low freshwater input and as a result the area contains a range of fully marine habitats from extremely sheltered in the inlets to the wave-exposed, tide-swept open coast. There is a particularly diverse algal flora and a number of warm-water species are present. The area supports extensive and rich sediment communities, which include the largest and most south-westerly maerl *Phymatolithon calcareum* bed in the UK.
- Atlantic salt meadows

20. In addition, 'reefs' are a qualifying feature but not the main reason for site selection.

Biodiversity Action Plan

21. Beds of maerl (the collective term for several species of calcified red seaweed) are of particular conservation value because of the diversity of species they may support. Two species of maerl that occur in the SAC are included in the UK Biodiversity Action Plan[vi]. Maerl habitats are susceptible to damage from scallop dredging and bottom trawling, which in turn may threaten the conservation objectives of the SAC.

SAC Management Plan

22. Under Article 6(1) of the Habitats Directive, a management plan for the SAC was developed in 2002 and signed off by the relevant authorities in 2006[vii]. It is couched in terms of a continuing scallop fishery whose habitat impacts would be monitored under a Voluntary Agreement that allowed some scallop fishing (see section on Voluntary Agreement below). Under the plan, these monitoring activities are the joint responsibility of Natural England and the CSFC.

23. The SAC Management Plan sets out a framework for monitoring and managing the impacts on the SAC of a variety of human activities including scallop dredging. It contemplated the continuation of scalloping under a Voluntary Agreement whilst the potential environmental impacts were investigated. However, recent Natural England advice on the impact of towed gears on the SAC features has provided strong justification for now closing the site to these activities. The management plan will need to be updated by Natural England and the Cornwall Sea Fisheries Committee once the Statutory Instrument has come into force.

Voluntary Agreement

24. The Statutory Instrument negates the Voluntary Agreement described below and provides enforceable protection to the whole of the outer SAC all year round. Within the "Designated Area", there are two sub-areas that together constitute 28% of the outer SAC. It is within these areas that some scallop dredging has taken place under the terms of the Voluntary Agreement originally negotiated in March 2007 and updated in September 2007[viii].

25. The Voluntary Agreement was made primarily between the local fishermen and CSFC but has wider support amongst other South-West and Cornish fishing associations. Under the agreement, scallop dredging was limited to 8 local vessels (only 7 of which are still active) fishing for up to 15 days a month in November and December. The agreement specified that only vessels that had a track record of fishing in the SAC in 2006 would be allowed to fish at all, and that the days would not be transferable between vessels, or rolled over from November to December. Since the Voluntary Agreement was introduced very little dredging activity has taken place within the designated area.

Surveys and monitoring showing extent of features liable to damage from scallop dredging

26. English Nature (now Natural England) has a statutory responsibility to undertake six yearly monitoring and report on the condition of the SAC. Sub-tidal monitoring was undertaken in 2001, using grab samples.[ix] This work concentrated on key areas of sub-tidal sandbank habitat, including a block of samples in Falmouth Bay. Further sub-tidal monitoring was undertaken using divers in 2002.[x] This work concentrated on live maerl within the Fal estuary, along with areas of sea-grass, reef and sediments, but also included some drop-down video surveys of Falmouth Bay.

27. The 2001 survey concluded that the inner section of Falmouth Bay consisted of sandy gravel with marine communities that were moderately species rich and diverse. Scallop dredging is regarded as being among the most damaging fishing activities in benthic systems. This high level of damage is partly because of the action of the gear in digging-out scallops from the seabed, and partly because of the, often, long recovery times exhibited by the benthic species associated, and characteristic of, habitats in which the target species (scallops) live.

28. The predominant sub-tidal conservation interest feature within the SAC is maerl, and crushed maerl has a significantly lower conservation value (that is, lower associated biodiversity) than intact beds. As scalloping is a highly impacting activity, it is likely to damage the matrix of the maerl habitat. However, Natural England considers that other sub-tidal habitats and sub-features of the SAC, particularly sub-tidal rock and boulder reefs, mud, eelgrass, gravel and sand and mixed sediment communities, are also likely to be vulnerable to damage from scallop dredging. Therefore, using only damage to maerl as a rationale for the closure misses the vulnerability of these other habitats to towed gears. There are several reefs in Falmouth Bay that contain significant numbers of rich and diverse species including pink sea-fans (another BAP species).

29. In April 2007, the University of Wales and the CSFC conducted a limited search of the area and depth zones where maerl was likely to occur in Falmouth Bay[xi]. Concerns had been raised about both scallop dredging and the anchoring of ships in the part of Falmouth Bay where maerl was thought to occur. Whether the maerl was present in sufficient quantities to qualify for designation under UK and EU conservation laws was unclear. This brief investigation was undertaken at the request of CSFC to confirm the presence of maerl offshore in Falmouth

Bay, to make an initial assessment of the distribution of the maerl biotope in the bay, how much of it was live and the macrobenthic fauna associated with the maerl gravel here.

30. Preliminary findings were presented at a meeting on the 11 September 2007, attended by Defra, Natural England, the CSFC, fishermen and their representatives (the St. Mawes and District Fishermen's Association) and the Marine Conservation Society. The survey was unable to map the precise distribution and extent of the maerl beds and other features that require protection within the SAC but the final report gave an estimate of live maerl cover of between 20% and 30% in the selected areas.

31. Although maerl is an important conservation feature, Natural England advice was that the site contains other valuable habitats including rock reefs and mixed ground that should be supporting bio-diverse upright benthic communities that would be damaged by scallop dredging. At the same meeting, the fishermen agreed to incorporate some reductions in the allowed fishing areas into the Voluntary Agreement. It was reported to the meeting that fishermen had abided by the agreement not to fish in the SAC during the 2007 January to October period.

Natural England advice

32. In the light of these results, Natural England recommended a ban on all scallop dredging in the SAC in order to meet our obligations under the Habitats Directive, and to bring the site back into good condition[xii]:

    - 'In order to support the proposal to allow 15 days of scalloping activity in both November and December each year, it is necessary to be certain beyond reasonable scientific doubt that such activity would not adversely impact the features for which the Fal and Helford site was designated. These features include sub-tidal sandbanks (including maerl communities eelgrass, gravel and sand, and mixed sediment communities), shallow inlets and bays (including sub-tidal mud communities) and reefs (including sub-tidal rock and boulder communities). A substantial published scientific literature has determined that scallop dredging typically results in damage to the habitat structure and the loss of epibiota from reefs and mixed stony ground and the loss of biodiversity from maerl communities.
    - On the basis of the scientific literature and the distribution of conservation features within the Fal and Helford SAC, Natural England advises that the proposed scallop fishery would damage the features of conservation interest and therefore the fishery within the site should be closed.'

33. Natural England's advice mentioned bottom trawling as a potentially damaging activity, but the main current impact from fishing gear was from scallop dredging. Once the SAC is closed then an "Appropriate Assessment" will be required in order to re-open the fishery. This would have to prove that scallop dredging was not going to damage any of the features for which the site has been designated. The normal expectation is that those wanting to carry out an activity that calls for an assessment should bear the cost.

Sectors and groups affected

34. The main sectors and groups affected by the closure are:

The fishing industry

35. **Scallop dredgers:** Scallop dredging has taken place within the outer area of the SAC for the past 30 years. Historical activity has been low, mainly occurring during periods of bad weather in the winter months when vessels have been unable to fish in more exposed waters. Following the introduction of the voluntary agreement very little bottom trawling has taken place within the SAC, even amongst vessels eligible to dredge there. As a result, the impact on the 8 vessels of banning dredging within the SAC entirely will be very limited based on the data available. Other vessels that fish immediately outside the SAC may benefit from any spill-over effect if scallop stocks increase within the SAC, or from any increase in scallop larval settlement outside the site that may occur as a result of reducing the exploitation of scallop stocks inside the SAC.

36. **Static gear fishing industry:** A ban on scallop dredging in the outer area of the SAC may result in an increase in static gear, such as tangle, ray and gill netting, or crab & lobster pots. Previous mobile gear closures in other areas of the UK have led to an increase in the deployment of fixed gear as the closure reduces gear conflict and the risk of static gear being towed away.

37. **Relations with the fishing industry:** The closure may impact negatively on the relationship between the competent authorities and the fishing industry, as they may feel that their efforts to agree to a voluntary restriction of scallop dredging within the closed area was of no long-term benefit to themselves, once the closure has been brought in. This may have a knock-on effect on future industry engagement with other management activities with conservation objectives.

38. **Commercial scallop divers:** Two vessels involved in commercial diving for scallops in the area would not be affected by the Order, but may benefit from an increase in scallop stocks and any spill-over effect. The closure of the area to scallop dredging could greatly improve the viability of sustainable scallop diving operations, which would benefit these local operators and businesses, including retailers and suppliers, as diver caught scallops gain a higher price on the market. However, this has to be weighed against a proposal by the CSFC to ban all scallop extraction by bye-law for the purposes of establishing an experimental Marine Protected Area for scallop stock management within the outer area of the SAC.

Users

39. Users are those people who make use of the outer SAC, both local residents and visitors, whether this is for angling, scuba diving, boat charter or other activities resulting in visits to the area. It is anticipated that the closure would benefit most of these activities since they depend, in part, on a healthy marine environment.

40. **Recreational users:** Local recreational diving or angling may benefit in the long term if the protection leads to the enhancement of the underwater scenery or species richness of the site such that it attracts more sport diving or angling enthusiasts, or improves the quality of the recreational experience for existing user groups. The impacts of any increases in these activities need to be factored into the Management Plan for the SAC. These impacts would include any damage caused by increased anchoring activity in sensitive areas by recreational users.

Local economies and society

41. Given the direct costs discussed in paragraph 58, the social and economic costs of closing the outer SAC on the local community are anticipated to be minimal. Once the habitat has recovered potential benefits include an increase in the recreational dive industry (see section on benefits to leisure and recreation).

Impacts on wider economy

42. There may be an effect on the local economy as a result of the local scallop fleet being excluded. This may include impacts on local scallop trading businesses and scallop processors. However, given the low value of scallop landings recorded from within the sub-rectangle 29E4, within which the SAC lies, these impacts are likely to be minimal.

Public sector bodies

43. Public sector bodies will not be significantly impacted by the closure.

Enforcement bodies

44. The closure will be enforced by the CSFC and the Marine and Fisheries Agency. The economic costs of enforcement of the closure are considered below.

Analysis of costs and benefits

Option 1: Do nothing

45. The costs and benefits of doing nothing form the baseline against which Option 2 (closure of the outer SAC) is measured. The key risks of this option are:

Costs

46. That some of the environmental benefits of SAC designation will be forgone.

47. The risk of infraction fines: A further potential consequence of this option is that the UK may be subject to infraction proceedings by the European Commission and subsequently fines for not implementing the Habitats Directive fully. This may be more likely if this option is also pursued for the other proposed offshore SACs. In previous recent cases daily fines of around £100,000 have been proposed by the European Commission for failure to implement or comply with EU directives[xiii].

Benefits

48. The main benefit of doing nothing would be that vessels subject to the Voluntary Agreement could continue to operate as normal without incurring any additional costs.

Option 2: Closure of the outer SAC by introducing "The Fal & Helford Designated Area (Fishing Restrictions) Order 2008"

Costs

49. The exclusion of towed demersal and scallop fishing gears from the outer SAC could result in a number of costs, including the direct costs to the affected sector of the fishing industry, any indirect costs from gear conflict outside the area and pressures on other fisheries, any potential environmental costs from increased

fishing activity outside the area, and the administrative and enforcement costs to Government.

50. Under the terms of the SI, vessels would be able to continue to steam through the area, use static gear, dive for scallops (subject to the bye-law banning scallop extraction proposed by CSFC for the purposes of establishing an experimental Marine Protected Area for scallop stock management) and use a rod-and-line to fish. Other activities such as scuba diving and sightseeing would also be permitted.

Analysis of Fisheries Impacts

51. A range of information is available to inform the assessment of the impacts of the recommended closure on fishing activities. This includes the details of the 8 UK licensed commercial fishing vessels that currently have access rights to operate in the area under the terms of the Voluntary Agreement, data on catch rates from these vessels, including the Registration of Buyers and Sellers data from 2006-2007 and landings data from 1995-2007, and vessel position and monitoring data for these vessels from the Marine and Fisheries Agency Monitoring Control Surveillance System (MCSS) including sightings data from Cornwall SFC patrol vessels. In addition, expert advice has been analysed from local fishing industry regulators such as the MFA's District Inspectors, officers of the CSFC and conservation and fisheries advisors in Natural England, as well as the responses to the public consultation. From this information it is possible to build a reasonable picture of fishing activities within the area and the likely effects of the closure.

52. The Registration of Buyers and Sellers Data for these individual vessels is only available from July 2006 onwards. Prior to that date, landings data for 10m and under vessels are generally available for groups of vessels only, of which 4 of the 8 affected vessels formed only a part. It was therefore not possible to use the grouped landings data to give an accurate estimate of scallop catch rates for all the 8 affected vessels.

53. The RBS data is entered by local MFA officials and catches are assigned to specific ICES rectangles on the basis of a combination of log-book data, where available, the monthly shellfish return for 10m and under vessels and local knowledge about where the vessels usually fish. The use of log-books relies on the skippers being aware of the boundaries of the ICES rectangles and recording their movements accurately. In particular, it is possible for a vessel that has been fishing within the SAC (in 29E4) and across the ICES rectangles boundary into 29E5, for the skipper to have recorded the vessels location as 29E5 without necessarily appreciating that some of his catch would have come from within 29E4. Of course, as with any data entry system, the potential also exists for human error at the point of entry.

Fishing activities in the outer SAC

54. As a result of the Voluntary Agreement, only 8 vessels should be directly affected the closure. These vessels are predominantly in-shore vessels between 9.9 and

13.9 metres long with (on average) two to three crewmen each, and tow between 6 and 12 dredges per vessel. The CSFC District 'Dredges' byelaw limits vessels to 12 dredges per vessel maximum and the 'Shellfish Boats' byelaw limits vessel size to 16.46m overall length. Visiting vessels do not normally work within the SAC. Despite being allowed to continue a limited amount of fishing in the outer area of the SAC however, the data analysis suggests that once the Voluntary Agreement had been agreed in 2007, most of the vessels chose to fish elsewhere, although this may also be due, in part, to annual variability in the chosen fishing grounds.

Vessel range / Catches outside the closed area

55. The SAC lies in Statistical rectangle 29E4 in area VIIe as defined by the International Council for the Exploration of the Sea (ICES) and covers most of the coastal area of South-West Cornwall.



56. Fisheries data is only reported down to the level of statistical rectangle. The SAC is approximately 21 square nautical miles compared to the total statistical rectangle size of 1152 square nautical miles or 825 square nautical miles of sea (below mean high water mark). The SAC therefore represents just under 2% of the total rectangle by area, or 2.5% of the marine area. However, for the purposes of this Impact Assessment, it has been assumed that all landings of scallops in 29E4 during November and December 2007 came from within the SAC, in order to provide an upper bound of the likely costs incurred as a result of the closure.

57. In addition to area 29E4, the vessels are also active in neighbouring areas, including 29E5 (to the east of 29E4), which includes other known and important scallop fishing grounds in Gerrans Bay (7 miles from Falmouth Bay), Veryan Bay (10-12 miles from Falmouth Bay) and St Austell Bay (20 miles from Falmouth Bay), and 28E4 (to the south of 29E4).

Valuation of affected landings

58. The direct impact on vessels using towed bottom gear will be to reduce their current landings from demersal trawling and dredging in the area to zero. A key question for the costs estimation is therefore what their current landings are from demersal trawling and dredging in this area.

Basic calculation of affected landings

59. Calculation of affected landings has been based primarily on an analysis of RBS data and landings data from log forms, especially where vessels are over 10m in length, for the 8 affected vessels. Landings by these vessels have been identified for the ICES rectangle 29E4, within which the outer SAC lies, and neighbouring rectangles 28E3, 28E4 and 29E5. These figures represent total value, that is, the total value of landed fish before any deductions of costs.

60. The data for 2007 revealed that of the 8 vessels permitted to fish in the SAC in November and December, only 4 recorded any catches in area 29E4 in 2007. The total scallop catch for the year was approximately £31,300 but the total value of scallops landed in 29E4 in November and December, when the vessels were permitted to fish in the SAC under the terms of the Voluntary Agreement, only amounted to £275.

61. If we assume that, in the absence of closure, fishing activity in future years would be similar to that in 2007; these data suggest that the impact of closing the outer area of the Fal & Helford SAC to dredging in November and December is likely to be in the region of £275, accounting for approximately 1% of their annual catch values relative to the baseline of continuing with the Voluntary Agreement.

62. We have assumed that the affected vessels will bear the total cost of £275 in the first year of the SI's introduction. Thereafter it is assumed that they will seek alternative fishing grounds and that the cost of closure will be zero in future years. This will involve some additional expenditure on fuel in steaming to these areas, however we have not attempted to quantify these indirect costs.

63. From the table below, which shows catches in 29E4 (in which the SAC lies) and the immediately surrounding ICES rectangles (29E5, 28E4 and 28E3), the fishermen's total catch for November and December 2007 accounted for approximately 5% of their catch for the year, as did their scallop catch.

Table 1: Local landings values of vessels permitted to fish under the Fal and Helford Voluntary Agreement, by species, 2007

	2007		of which Nov/December	
	Scallops	Other species	Scallops	Other species
29E4 (location of Falmouth)	£31,300	£14,150	£275	£ -
29E5 (east of Falmouth)	£512,250	£31,150	£25,550	£2,750
28E4 (south of Falmouth)	£24,200	£3,600	£4,200	£ -
28E3 (south west of Falmouth)	£19,200	£350	£ -	£ -
Total	£586,950	£49,200	£30,050	£2,750

Source: Marine and Fisheries Agency
Figures above reflect reported landings. Reporting is compulsory, however it is not clear to what extent these correlate with actual landings.
Note: Not all permitted vessels recorded landings in this period.
Figures may not sum due to rounding.
- denotes zero

Annual variability

64. Registration of Buyers and Sellers data only became available for all these vessels from July 2006 onwards. We therefore, only have 1 years' worth of landings data upon which to calculate the direct impact of the closure of the fishery on the industry. It is therefore difficult to draw any conclusions about whether the landings figures for 2007 are typical or whether they represent an unusual year and may over-estimate or under-estimate the impact on the fishery accordingly. There is anecdotal evidence that 2007 represented a turning point for the industry when scallopers began fishing more nomadically, relying less on local fishing grounds. There is additional anecdotal evidence that the affected scallop dredgers would not fish in the SAC every year, but would rotate the scalloping grounds where they fished over a 3-4 year period.

65. The table below shows the landings data for 2006, but as this is only available for July 2006 onwards, cannot be compared to the table of 2007 data above but is shown for illustrative purposes.

Table 2: Local landings values of vessels permitted to fish under the Fal and Helford Voluntary Agreement, by species, 2006

	2006*		of which Nov/December	
	Scallops	Other species	Scallops	Other species
29E4 (location of Falmouth)	£19,900	£100	£ -	£ -
29E5 (east of Falmouth)	£281,750	£7,650	£69,850	£3,150
28E4 (south of Falmouth)	£23,200	£150	£ -	£ -
28E3 (south west of Falmouth)	£ -	£ -	£ -	£ -
Total	£324,850	£7,900	£69,850	£3,150

Source: Marine and Fisheries Agency
Figures above reflect reported landings. Reporting is compulsory, however it is not clear to what extent these correlate with actual landings.
** Data available from July 2006 only*
Note: Not all permitted vessels recorded landings in this period. Rounded figures used. - denotes zero

Displacement

66. The cost to the fishermen of fishing elsewhere (displacement) lie predominantly in the extra fuel, provisioning, perhaps accommodation, and harbour fees, etc. Without a detailed knowledge of each vessel's economic characteristics or opportunity costs it is not possible to accurately assess these costs. However, given the limited scale of scallop dredging under the Voluntary Agreement it is unlikely that displacement will be a significant issue.

Effect of the closure on future profits and earnings

67. An accurate estimate of the true economic loss of fishing by towed bottom gear in the SAC would have to consider a number of other factors, including the extent to which lost revenues could be off-set by catching in other areas and any implications for increased costs that may arise from prosecuting alternative catching opportunities. Currently fishermen make only very limited use of the SAC for dredging in November and December, however, its closure will remove

the option for them to increase activity here in the future, for example during periods of bad weather as highlighted below. This cost has not been quantified.

Health and safety implications

68. In bad weather the local fleet could sometimes find worthwhile catches in the SAC. The Voluntary Agreement allowed them to continue to do so on a limited basis. The Voluntary Agreement allows boats to fish safely in the outer SAC in times of bad weather with strong winds during the months of November and December when it could prove hazardous to work outside the SAC. Closing the in-shore fishing grounds within the SAC will mean that the local fleet cannot fish in the SAC in bad weather at any time and will either force local boats into more exposed and hazardous areas outside the bay, with consequent health and safety implications, or result in them being unable to leave port at times when they might have chosen to fish in the outer SAC, with consequent loss of earnings.

69. Health and safety issues can be significant, but are a matter for individual fishermen to assess, and to ensure that they put to sea in appropriate conditions. In practice, the catching effectiveness of the scallop dredges falls off significantly with rougher sea conditions. That profitability decision is based on individual vessel characteristics and will depend primarily on the size of the vessel, how many dredges it tows, fuel costs and crew numbers. The landings data for 2007 show that limited use was made of the ability to fish in the SAC during November and December when bad weather could be expected.

Environmental costs

70. The recommended closure is intended to secure the conservation value of the designated features within the SAC and to assist in their recovery. It is possible however that the exclusion of towed gears within the recommended area could lead to some increases in fishing effort elsewhere (displacement) as fishermen seek to maintain the value of their catches. In addition to potentially putting pressure on stocks and creating greater competition for vessels already fishing in those areas, increased fishing pressure in other areas may lead to increased environmental harm, if the local scallop fleet is displaced into other environmentally sensitive inshore areas outside of the SAC.

71. It is not clear how much effort would be displaced from the recommended area. It is also difficult to predict where fishing effort would be likely to increase and how significant this would be in relation to existing activities. However, given the limited catch data from within 29E4 during the months of November and December, it is likely that the impacts of displacement will be minimal.

72. Some other environmental costs may arise as a result of the effects of changes in fishing activities, but these are difficult to predict. Increased journey times to new fishing grounds could for instance lead to greater CO_2 emissions from some fishing vessels.

73. There could be an increase in static gear within the SAC as a result of towed bottom gear being prohibited from the area. An increase in static gear could

cause damage to erect species on the sea-bed, through net entanglement, as well as ghost fishing, and any increase in static gear will need to be reflected in an updated management plan for the area.

74. Although the impact of potting for lobster and crab on sea-bed habitats and species is thought to be minimal, the long-term effects of intensive potting are not known, although longer-term monitoring should increase this knowledge base. The impacts of static gear and potting need to be reflected in the management of this fishery in the SAC.

75. Furthermore, if there is an increase in recreational dive boats in the SAC, this could result in an increase in anchor damage on the sea-bed, although this depends on local current conditions and therefore whether the boats need to remain mobile.

Administrative and enforcement costs

76. The recommended closed area would not directly result in an increased administrative burden for the fishing industry.

77. Delivery of the recommended Option is through the creation of a Statutory Instrument (SI) under Sections 5, 5A and 15(3) of the Sea Fish (Conservation) Act 1967(a) to close the outer area of the Fal & Helford SAC to scallop dredges and other towed bottom gear. This order provides powers to British Sea Fishery Officers to enforce the closure. Lead responsibility for enforcement of the SI falls to the Marine and Fisheries Agency (MFA), though in practice will be undertaken in collaboration with CSFC. It is anticipated that the existing routine patrols undertaken by CSFC in the area will form the basis for enforcement of the closure. These routine patrols are carried out on the basis of a risk-based assessment and in response to information received. It is anticipated that there will be no requirement for any additional patrols to the area, over and above those already being carried out, and that therefore the additional costs of enforcement of this SI will be minimal. No quantified costs for enforcement have therefore been included in this Impact Assessment.

78. The boundaries in the order are clearly described and are enforceable through the use of obvious headlands.

79. Whilst it is difficult to predict how many infringements of the SI would be likely to take place, given the limited amount of fishing in the area based on the landings and sightings data and evidence of good compliance within the terms of the Voluntary Agreement, it seems unlikely that any infringements will occur and the costs of these have therefore not been quantified or included in this Impact Assessment. However, it is recognised that since the closure of Lyme Bay was announced, there has been in increase in ill-feeling amongst the fishing industry and this may increase the likelihood of non-compliance. This will have to be monitored by the MFA and CSFC. In the event of a serious non-compliance issue, the MFA could assist and could consider using their aerial surveillance capabilities, which, in the past, have worked well in relation to closed areas. The cost of this would be in the region of £2000/flying hour.

80. It is recognised that the recommended closure may result in displacement of some towed gear fishing activity and this displacement activity could result in an increased enforcement burden elsewhere.

Benefits

Environmental benefits

81. Closing the SAC will prevent the possibility of damage to the conservation features listed under the Habitats Directive by scallop dredging and towed bottom trawls. These features include the extensive areas of maerl gravel which extend throughout Falmouth Bay. Beds of maerl are of particular conservation value because of the diversity of species they may support. In addition, Natural England considers that other sub-tidal habitats and sub-features of the SAC, particularly sub-tidal rock and boulder, mud, eelgrass, gravel and sand and mixed sediment communities, are also likely to be vulnerable to damage from scallop dredging and will therefore be protected by the closure of the SAC to all towed bottom gear. It is important to note, given the limited fishing activity in the closed area in 2007, that the environmental benefits of the closure have been assessed against the historic damage done to the site through scallop dredging prior to the introduction of the Voluntary Agreement.

Potential for recovery

82. An assumption has been made that banning scallop dredging and other towed bottom gear from the outer SAC will allow the designated features within the SAC to recover although the timescale of this recovery is not known. However, recovery will be assessed as part of the 6-yearly monitoring duty of Natural England. It is important to note that recovery will be assessed against the historic levels of damage on the designated features prior to the introduction of the Voluntary Agreement, given the low levels of dredge activity found in the SAC in 2007, after the Voluntary Agreement was put in place.

Food Provisioning (Fish for human consumption)

83. Whilst recognising the exclusion of some mobile towed gear from the recommended closed area will incur costs it is important to recognise that the closed area could provide potential benefits for other fisheries. Two broad categories of food provisioning benefits have been identified. First, benefits may be derived from within the closed area in terms of increased opportunities for permitted fishing practices, and secondly, potential benefits may exist outside of the closed area due to larval export, spill-over from the closed area and increased finfish stock levels.

Enhanced Fishing Opportunities within the Recommended Closed Area

<u>Static Gear (Pots) and Netting</u>

84. Whilst there is no primary research available to indicate what the increased level of opportunity for static gear will be, with the exclusion of certain towed gear it is possible there may be some increase. There is not sufficient data on netting activities to assess clearly the current level of netting in the recommended closed area.

Dived Scallops

85. No detailed assessment has been made of the value to the economy derived in the Fal & Helford SAC from dived scallops and their associated businesses for the purposes of this impact assessment. It is possible there may be some increase in scallop diving in the short term under the recommended option. However, there is a proposal for a bye-law to ban all scallop extraction within the outer area of the SAC for the purposes of establishing an experimental Marine Protected Area for scallop stock management. If and when the bye-law comes into force, commercial scallop dive fisheries operating in the estuaries of the SAC could still benefit from the closure due to larval export and spill-over effects into the estuaries from the increased scallops stocks within the SAC.

Benefits for scallop stocks

86. There may be beneficial effects of the recommended closure on species or features other than those for which the site was designated as an SAC.

Scallops (Larval Export)

87. There are numerous studies to suggest closed area protection can increase the abundance and mean size of target species and this is particularly valid for sedentary and long lived species such as scallops. Studies indicate that closures can enhance the local reproductive output of a target species and that this in turn can lead to the export of larvae to surrounding areas that are open to fishing.

88. Scallops are broadcast spawners, with long-lived larvae (20 to 40 days) and there is a possibility therefore that, based upon experiences at other closed areas, the recommended closure could result in the increase in the abundance of scallops in the closed area through settlement and subsequent growth of individuals, followed by increased export of scallop larvae to adjacent areas open to fishing. It should be noted that any benefits would tend to be in the medium to long term and any larval export benefits would depend upon a number of factors (availability of settlement substrate and other environmental conditions for example), as well as effective enforcement of the closure.

89. Another influencing factor would be the potential impact of permitted fisheries that could influence scallop abundance. Whilst diving for scallops is acknowledged to have a lesser impact on scallop habitats, for example, concerns have been raised regarding the degree to which this activity can adversely impact scallop populations through hand selection of larger more productive specimens.

90. Existing evidence nevertheless suggests that there is a possibility that the recommended closure could result in larval export to adjacent fishing areas, which then benefit from increased settlement and recruitment resulting in a

fisheries benefit. Whilst it is not possible without further primary research to quantify these possible benefits it is important to note they exist.

Scallops (Spill-over)

91. Scallops are a sedentary species and the published evidence for spill-over benefits for this species from closed areas is not extensive. There are two examples, one in Isle of Man waters and one at Start Point, where the protection afforded to scallops is thought to contribute to the sustainability of scallop stocks, not only within protected zones but also over wider areas through spawning spill-over effects. This is based on anecdotal evidence relating to fishing effort on the borders of the closure around the Isle of Man suggesting some spill-over benefits have been apparent. For this assessment however it is not possible to suggest, without further primary research, that there would be any significant spill-over benefits for scallop fisheries from the recommended closure.

Proposal for an experimental Marine Protected Area for scallop stock management

92. The closure of the SAC to scallop dredging therefore provides an opportunity to pursue alternative management strategies. To that end, the CSFC, in collaboration with Defra and the Centre for Environment Fisheries and Aquaculture Science (CEFAS), are taking forward plans to establish an Experimental Marine Protected Area (MPA) for scallop stock management in the outer area of the SAC, and will be managing all scallop extraction methods by bye-law for this purpose. CEFAS are conducting a baseline survey of scallop stocks in the area to inform the preliminary objectives of the Experimental MPA. A study of the potential benefits to scallop stocks and other environmental benefits were modelled by CEFAS in a Defra sponsored project called "Framework for evaluating the application of seasonal or rotational scallop fishery closures" Defra Project code MFO228[xiv]. This project will provide a valuable source of information on the potential benefits of the experimental MPA.

93. The costs and benefits of the proposed experimental MPA are outside the scope of this Impact Assessment.

Leisure and recreation

94. The SAC is a popular recreational dive site and local training schools dive within the SAC with parties of 5 or 6 divers whenever the weather allows. Local sources estimate at least 200 dives per year of this nature alone. Divers are attracted to areas with healthy habitats and high species richness, and an enhancement of these features in the SAC would lead to better diving for existing users and the probability of attracting new divers, bringing increased financial and leisure benefits to the area.

95. An improvement in the quality of the marine habitats is likely to have knock-on effects up the food chain, leading to improvements in biodiversity which may results in an improved experience for sport divers, anglers and improved crab and lobster catches.

Summary of costs and benefits

96. The landings value of scallops in the ICES sub-rectangle 29E4, within which the SAC lies, from the 8 vessels directly impacted by the closure, have been shown to be £275 in 2007. We have assumed a direct cost to industry of £275 in the first year with no further losses to fishermen and crew in subsequent years on the assumption that they would seek to maintain the value of their catches by fishing in different areas, or with different gear. The closure may result in a small increase in fuel costs and in fishing pressure elsewhere with potential costs to the industry and environment in those areas through impacts on stocks and habitats. Given the current fishing activity of affected fishermen however, these are anticipated to be minimal. Enforcement costs are expected to be subsumed within existing activity and to be negligible.

97. The environmental benefits of this policy arise from the protection of the designated features within the SAC and the wider ecosystem benefits for the UK public. These will be assessed against the historic levels of damage on the designated features prior to the introduction of the Voluntary Agreement.

98. A number of economic benefits would be expected to arise from the closure, including the protection of the habitats and species relied upon for activities such as fixed gear fisheries and recreational diving. The closure may increase opportunities for static gear fishing though the elimination of gear conflict in the area. There may also be benefits to recreational users (such as divers and anglers) and tourism within the area.

99. In conclusion, Government considers that the high environmental benefits of protecting the designated habitats and features within the Fal & Helford Special Area of Conservation considerably outweigh the costs to demersal trawlers and scallopers, which are minimal and are only likely to be felt in the short-term.

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	*Results in Evidence Base?*	*Results annexed?*
Competition Assessment	Yes	Yes
Small Firms Impact Test	Yes	Yes
Legal Aid	No	Yes
Sustainable Development	No	Yes
Carbon Assessment	No	Yes
Other Environment	No	Yes
Health Impact Assessment	No	Yes
Race Equality	No	Yes
Disability Equality	No	Yes
Gender Equality	No	Yes
Human Rights	No	Yes
Rural Proofing	No	Yes

Annexes

ANNEX A

Small firm impact test

The policy will have an impact on small businesses. All the vessels that are likely to be affected are considered small businesses. However, a maximum of 8 vessels have been identified as being potentially affected, which is not significant in relation to the UK or Cornish fleet. As the Voluntary Agreement restricted fishing to 15 days per month in November and December, and not in the rest of the year, the impact in terms of lost earnings will be minimal (totalling £275 in the first year, zero thereafter).

Both scuba diving and sea angling small businesses may see increased benefits from the recommended closure; however, these cannot be quantified.

The static gear fishery in the closed area may derive benefits from the recommended closure to towed gear vessels.

Competition Assessment

The competition assessment filter test asks whether the policy measures would affect market structure; impact on costs of some firms substantially more than others; create additional costs for new firms entering the market; or restrict the ability of firms to compete.

Fishers using static gear or recreational users may benefit from the absence of towed bottom gear, but the current low levels of activity suggest any impacts will be minimal. The effects of displacement and the interaction of different fisheries are complex but also anticipated to be minimal.

There may be likely displacement issues relating to vessels moving to other areas to fish, causing greater competition to fish in that particular area. Though this is unlikely to be significant as the number of vessels likely to be involved is quite small, and they already internalise these decisions when fishing in other areas where more profitable catches are made, for example, the 2007 winter season when they left the local area to fish in the East Channel.

Legal Aid impact test

This Order creates new criminal sanctions. The Ministry of Justice have been consulted and at the time of writing only the Judicial Policy team have replied to us.

Carbon Impact test

The Proposal may result in a small increase in fuel consumption however; this will have only a minimal effect on carbon emissions.

Other Environmental issues

The Proposal is for the benefit of the marine environment, which will be monitored by Natural England and the Cornish Sea Fisheries Committee**.**

Health/Race/Disability/Gender

The Proposal will not impact on health, race disability or gender. Conditions apply equally to all individuals and businesses involved in the activities covered by the Proposal.

Human Rights

The Proposal is consistent with the Human Rights Act 1998.

Rural Proofing

Defra have an overarching policy of balancing economic, social and environmental costs and benefits.

ANNEX B: References

[i] The Environment Agency of South-West Region: Bye-law for the Regulation of Scallop Dredging in the Fal and Helford European Marine Site Cornwall. Fal and Helford Sea Fisheries District Methods of Fishing (Dredges) Byelaw

[ii] Statutory Instrument: the Fal and Helford Designated Area (Fishing Restrictions) Order 2008.

[iii] Davies, J., & Sotheran, I. (1995). Mapping the distribution of benthic biotopes in Falmouth Bay and the lower Fal Ruan Estuary. Peterborough: English Nature Research Reports No. 119a.

[iv] http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0013112

[v] Natural England advice to Defra dated 6 February 2007, Rob Blyth-Skyrme *et al*.

[vi] http://www.ukbap.org.uk/UKPlans.aspx?ID=40

[vii] Fal & Helford Candidate Area Special Area of Conservation (SAC) Management Scheme – 18 December 2003

[viii] March 2007 text of the September 2007 Voluntary Agreement between St. Mawes and District Fishermen's Association and Cornwall Sea Fisheries Committee

[ix] Allen, J.H., & Proctor, N.V. 2003. Monitoring sub-tidal sandbanks of the Isles of Scilly and Fal and Helford Special Areas of Conservation. Unpublished report to English Nature from the Institute of Estuarine and Coastal Studies, University of Hull.

[x] Howson, C., Bunker, F., & Mercer, T. 2004. Fal and Helford European Marine Site sub-littoral monitoring 2002. Unpublished report to English Nature.

[xi] Falmouth Bay Maerl community benthic survey (April 2007): Ana Ruiz-Frau, E. Ivor S. Rees, Hilmar Hinz, Michel J Kaiser

[xii] Letter dated 9th November 2007 from James Marsden of Natural England to Rodney Anderson

[xiii] EC propose fixed fine (to European Court of Justice) for France of €28 million and a daily penalty payment of €117 882 for failure to comply with the EU Drinking Water Directive (http://www.eurosite.org/insight_brussels/2007_03/5_3.html). EC propose daily fine of €168 800 for France for failure to implement the Contained use of GMs Directive (EU press release, 1 February 2006)

[xiv] Framework for evaluating the application of seasonal or rotational scallop fishery closures. Defra Project code MFO228