



Scottish Government
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Marine Scotland

Sound of Gigha proposed Special Protection Area (SPA) Business and Regulatory Impact Assessment

December 2020



marinescotland

Partial Business and Regulatory Impact Assessment

Title of Proposal

Sound of Gigha proposed Special Protection Area (SPA)

Purpose and intended effect

Background

The Scottish Government is committed to a clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long term needs of people and nature. In order to meet this commitment our seas must be managed in a sustainable manner - balancing the competing demands on marine resources. Biological and geological diversity must be protected to ensure our future marine ecosystem is capable of providing the economic and social benefits it yields today.

The EU Wild Birds Directive (2009/147/EC as codified) requires Member States to classify as Special Protection Areas (SPAs) the most suitable territories for wild birds. Building on the work of the SPA Review Working Group and taking account of existing guidelines on the identification of SPAs (JNCC, 1999), Scottish Natural Heritage (SNH) and the Joint Nature Conservation Committee (JNCC) have identified 13 sites which they consider essential for marine SPA status. These proposals include sites supporting wintering waterfowl, important areas for red throated divers, terns, European shag and foraging seabirds.

The Sound of Gigha proposed Special Protection Area (SPA) is centred around the island of Gigha, which lies some 4 kilometres (km) off the west coast of the Kintyre peninsula in Argyll and Bute (Figure 1). The SPA covers a total area of 363.27km² extending from Macrihanish Bay in the south to the entrance of Loch Caolisport off Knapdale to the North. It includes the sheltered waters of the Sound of Gigha between the island and the mainland and of West Loch Tarbert.

The area included within the SPA supports a population of European importance of the following Annex 1 species:

- Great northern diver (*Gavia immer*)

It also supports migratory populations of European importance of the following species:

- Common eider (*Somateria mollissima*)
- Red-breasted merganser (*Mergus serrator*)

This region of the western seaboard has a complex bathymetry due to a combination of the deepening of sea lochs and major channels by the scouring action of ice, which created locally-enclosed deeps with shallower seaward terminations ('sills'), and variation in resistance to erosion of the bedrocks. Consequently to the west of Islay the sea floor is generally flat and lies at a depth

of between 40-80 metres (m), but to the east there are narrow, deep channels which separate the islands and continue benthic shape of the sea lochs seawards. Hence, in contrast to the Outer Hebrides and other islands further north, the waters close inshore to Gigha tend to be deeper (up to 50m) and rapidly deepen in places to over 100m. The SPA encompasses a band of relatively shallow water off the Kintyre coast.

The area also experiences a wide range of physical conditions, which in turn lead to a high diversity of habitats. West-facing open coasts, such as those off Macrihanish are fully exposed to the force of the Atlantic, while the sea lochs and sounds are protected from the prevailing winds and are for the most part sheltered from wave action. There are many rocks and skerries as well as small sheltered bays around Gigha and Gigha Sound is scoured by north-south channels. Offshore the sediments are a mixture of mud, sand and gravel while the very sheltered waters of West Loch Tarbert overlie soft mud sediment (Barne *et al* 1997). This complexity in physical conditions provides for a locally diverse range of habitats and associated fauna.

There is limited direct information on benthic habitats and species. Beds of seagrass, sea pens and gastropods are found in West Loch Tarbert while strong tidal streams at the entrance to Loch Caolisport overlie coarser sediments supporting burrowing species such as heart urchins and sea cucumbers. The presence of large numbers of eiders in the Sound of Gigha indicates the presence of beds of molluscs such as blue mussel.

Great northern divers and mergansers feed on a wide variety of fish that are associated with a range of seabed substrates. These birds catch fish by diving from the surface and pursuing their prey underwater. The fish species taken will be influenced by what is locally most readily available, but can include haddock *Melanogrammus aeglefinus*, cod *Gadus morhua*, herring *Clupea harengus*, sprats *Sprattus sprattus* and gurnard *Eutrigla gurnardus* along with smaller species such as sand-eels *Ammodytidae*, pipefish *Syngathidae*, gobies *Gobiidae*, flatfish *Pleuronectidae* and butterfish *Pholis gunnellus*. Great northern divers also feed opportunistically on small crustaceans.

Common eider feed almost exclusively on molluscs and small crustaceans, diving from the surface to pluck their prey from the seabed.

Great northern divers are capable of diving to considerable depths with figures of 60m recorded. Eider and red-breasted mergansers more typically feed at depths not exceeding 15m.

Eider are resident in this area throughout the year and red-breasted mergansers are typically short distance migrants, using coastal areas in winter. However, great northern divers are long distance migrants, moving annually between northern breeding grounds and more southerly wintering grounds such as those in the Sound of Gigha SPA.

Objective

The EU Wild Birds Directive requires member states of the EU to identify SPAs for:

- rare or vulnerable bird species (as listed in Annex I of the Directive); and
- regularly occurring migratory bird species.

And to do so in the geographical sea and land area where the Directive applies.

The EU Wild Birds Directive was adopted in 1979 by the EU member states due to increasing concerns about declines in Europe's wild bird populations caused by pollution, loss of habitats and unsustainable exploitation. The EU Wild Birds Directive recognises that wild birds, many of which are migratory, are a shared heritage of the member states and that their conservation needs international co-operation. The creation of a network of protected sites, including SPAs, is one of several conservation measures that contribute to the protection of rare, vulnerable and migratory bird species.

Further work is required to complete a marine UK-wide network of SPAs at sea in order to meet the needs of seabirds and waterfowl. The Joint Nature Conservation Committee (JNCC) has been working over the past decade on behalf of all the countries' Statutory Nature Conservation Bodies (SNCBs) to complete a programme of data collection and analysis to inform the provision of advice on possible sites. Natural England, Natural Resources Wales, and the Department of Environment Northern Ireland (DoENI) are considering several possible marine SPAs in English, Welsh and Northern Irish inshore waters, including extensions to existing seabird colony SPAs and entirely marine SPAs.

The network of marine SPAs in Scotland is being progressed by Scottish Natural Heritage (SNH) where these fall largely within 12 nautical miles from shore and by Joint Nature Conservation Committee (JNCC) where they fall largely beyond 12 nautical miles. SNH and JNCC have identified 14 sites which they consider essential for the completion of a list of marine SPAs. These proposals include sites supporting wintering waterfowl, important areas for red throated divers, terns, European shag and foraging seabirds.

Evidence in this BRIA is drawn from the work of statutory nature conservation bodies and consultants ABPmer and etec¹. It brings together the science-led arguments for classification and the projected potential social and economic consequences of such action. This will inform Scottish Ministers of the possible impacts of designating the SPA, and due to requirements of the Birds Directive this will be for informational purposes only as the decision to classify SPAs can only be on the basis of scientific evidence. The site has been identified for classification as an SPA due to the confirmed presence of biodiversity features detailed above.

This BRIA examines the socio-economic impact of designating the proposed Sound of Gigha site as an SPA. The assessment period covers the 20 year period from 2015 to 2034 - reflecting the time horizon within which the majority of impacts

¹ The Scottish MPA Project: Second Iteration of Site Proposals – Developing the Evidence Base for Impact Assessments, ABPmer

are expected to occur. As with any socio-economic assessment related to environmental classifications, the findings should be considered as estimates, and in cases where greater uncertainty exists, such as for fisheries, are deliberately presented as worst-case scenarios to build in necessary caution.

In addition a range of scenarios are presented to account for the inherent uncertainty associated with such proposals. Lower, intermediate and upper scenarios have been developed to reflect the requirements for management measures, the spatial extent of features and the extent to which OSPAR/BAP² features are already afforded protection. The intermediate scenario is viewed as the best estimate. The estimated impacts across the three scenarios commonly vary quite significantly.

Rationale for Government intervention

The EU Wild Birds Directive (2009/147/EC as codified) requires Member States to classify as Special Protection Areas (SPAs) the most suitable territories for wild birds. The Scottish Government is responsible for identifying SPAs for Scotland.

In addition, the Scottish Government has a number of international commitments to deliver a network of MPAs. Scotland's marine environment provides: food; energy sources (wind, wave and tidal power, minerals and fossil fuels); routes and harbours for shipping; tourism and recreational opportunities; and sites of cultural and historical interest. Scotland's seas contain important distinctive habitats and support a diverse range of species that require protection in order to be conserved or for recovery to be facilitated. Due to the competing demands placed upon Scotland's marine resources, more effective management is required so that a balance between conservation and sustainable use can be struck. Currently there is not sufficient protection in place to ensure that the marine environment is properly protected and complex ecosystems safeguarded.

The SPAs will form part of an ecologically coherent network of well-managed MPAs that is vital to conserve and regenerate our seas, in turn protecting the many goods and services they provide now, and for generations to come.

Consultation

Within Government

Consultation has been undertaken with policy colleagues within Marine Scotland, including aquaculture, nature conservation, marine renewables, fisheries and fresh water fisheries, and with Transport Scotland.

Historic Environment Scotland and the Scottish Environmental Protection Agency have also been consulted. Meetings were held with policy officials within these public bodies to discuss the development of these SPAs. We have also been working with Defra and other UK Departments on the join up between the Scottish

² Biodiversity Action Plan

MPA network, which includes SPAs, and the wider UK contribution to the OSPAR MPA network.

Public Consultation

A full public consultation took place in Autumn 2016. Further consultation took place in Autumn 2018 on a Network Assessment for the proposed set of sites and the SEA. An update to the SEA was consulted on in the summer of 2019.

Business

Routine updates are provided to the Marine Strategy Forum and are supplemented with bilateral meetings across sectors including the fishing industry, environmental NGOs, tourism and recreation, nature conservation, renewable energy, aquaculture, ports and harbours, defence and local community groups.

A National Workshop attended by a wide range of stakeholders was held in March 2016 to present the proposals and gather feedback on the proposed consultation package³.

Options

Option 1: Do nothing

Option 1 is the 'Do nothing' option; this is the baseline scenario. Under this option, the proposed Sound of Gigha site is not classified. Accordingly, no additional management measures would be required.

Option 2: Classify site as a Special Protection Area

Option 2 involves the formal classification of the Sound of Gigha site. Classification would provide recognition and protection to the natural features of the site while also contributing to the wider Scottish and UK SPA network. Requisite management would be required to maintain the status of the site.

• Sectors and groups affected

The following sectors have been identified as present (or possibly present in the future) within the proposed Sound of Gigha site and potentially interact with one or more of the features:

- Aquaculture (Finfish)
- Aquaculture (Shellfish)
- Commercial fisheries (GVA)
- Energy generation
- Military
- Ports and harbours
- Telecom cables

- Public Sector

Affected sectors may be impacted to a greater or lesser degree by classification depending on which scenario is pursued and which management option is preferred.

- **Benefits**

Option 1: Do nothing

No additional benefits are expected to arise from this policy option.

Option 2: Classify site as a Special Protection Area

The extent and quality of habitat and available food around Scotland's coast supports huge numbers of different species of seabirds. Few countries can match this and we have an international responsibility to protect what we have around Scotland. Therefore the appropriate action is to protect and maintain Scotland's seabird and water bird populations and meet the requirements of the EU Wild Birds Directive.

SPAs are created to meet international commitments under the EU Wild Birds Directive, which promotes the conservation of wild birds. SPAs are managed to safeguard the birds and avoid significant disturbance and deterioration of their habitats. This means that proposed activities likely to affect an SPA are assessed for their potential to cause such disturbance or deterioration. The relevant consenting authority must ensure beyond reasonable scientific doubt that any impact is not significant before permitting the activity.

While it may not be possible with current levels of research to monetise benefits with a satisfactory degree of rigour, it is clear that many of the benefits relate to aspects of our lives that we take for granted and for which it is good practice and common sense to maintain through protection measures such as SPAs.

Contribution to an Ecologically Coherent network

Scotland's seas support a huge diversity of marine life and habitats, with around 6,500 species of plants and animals, with plenty more no doubt to be found in the undiscovered deeps of the north and west of Scotland. Our seas account for 61% of UK waters and remain at the forefront of our food and energy needs, through fishing, aquaculture, oil and gas, and new industries such as renewables, as well as recreation activities and ecotourism. This SPA is a contribution to a wider network of Marine Protected Areas designed to conserve and regenerate our seas. This in turn will help ensure that ecosystem goods and services continue to support current and future generations. It is likely that an ecologically coherent network of marine protected areas is likely to provide greater benefit than the sum of its individual components.

Ecosystem Services Benefits

Ecosystems are very complex, and it is thought that the more complex an ecosystem is the more resilient it is to change. Therefore, if it is damaged or if a species or habitat is removed from that ecosystem, the chances of survival for those services reduce as the ecosystem becomes weaker. However, by conserving or allowing the species and habitats that make up that ecosystem to recover, we can be more confident of the continuation of the long term benefits the marine environment provides.

Non-Use Values

Non-use value of the natural environment is the benefit people get simply from being aware of a diverse and sustainable marine environment even if they do not themselves use it. We take for granted many of the things we read about or watch, such as bright colourful fish, reefs and strange shaped deep sea curiosities, to lose them would be a loss to future generations that will not be able to experience them. It is challenging to put a precise value on this, but the high quality experience derived from Scotland's seas can be better preserved through measures such as SPAs.

It is expected that non-use value will be attained as a result of classification and the support of wider conservation objectives. Whilst ecosystem services benefits at an individual site level cannot be readily calculated, the one-off non-use value to Scottish households of marine conservation in Scottish waters generated by the additional 14 SPAs is estimated to be in the region of £74 million.⁴ This figure uses valuation evidence across several sites with similar features and characteristics and highlights the significant positive non-use value that divers and anglers within the Scottish marine environment place on securing the quality of the marine resources they use as a result of protection against degradation.

Use Values

There could be a major transformative effect on inshore habitat and a significantly enhanced flow of environmental goods and services. We know the inherent capacity of the system and the flora and fauna that it could support. Achieving that could see the expansion of recreational activities such as diving, sea-angling, and other tourism alongside sustainable methods of fishing.

Research by Kenter et al⁵ has been used to estimate the use benefits to divers and anglers specifically, as a result of classifications safeguarding the total recreational value of the sites. The additional increase in recreational value as result of implementing management measures for the 14 new SPAs has an estimated total present value of £2.1-6.2 million over the 20 year assessment period.⁶

⁴ Developing the Evidence Base for Impact Assessments, ABPMer

⁵ <http://uknea.unep-wcmc.org/LinkClick.aspx?fileticket=Mb8nUAph%2bY%3d&tabid=82>

⁶ Developing the Evidence Base for Impact Assessments, ABPMer

In addition there is likely to be increased activity for businesses in the marine wildlife and tourism sector. This includes those directly involved (e.g. operating boat trips) and those benefiting indirectly (e.g. accommodation providers). The scale of this increase across the proposed sites cannot be quantified, but it can be expected to be some increment of the existing value of these activities. Given the marine wildlife tourism market is currently estimated to be worth £100's of millions per year, an increment of this could be expected to be worth in the region of £10 million per year across the network to the Scottish wildlife tourism market.⁷

Summary of Benefits

The uncertainties in each of the benefits assessed result in a large range of estimated values. Based on the available evidence, the combined total present value of the benefits for the new network (based on the additional benefits of the 14 new proposals) is tentatively estimated to be between in the region of £80 million over the 20 year assessment period. This is comprised of a one-off non-use value attained at designation to Scottish households of marine conservation in Scottish waters generated by the additional 14 SPAs of £74 million and an additional use value as result of implementing management measures for the 14 new SPAs of £2.1-£6.2 million.

For a qualitative summary of anticipated benefits to ecosystem services in this particular site see appendix A.

- **Costs**

Option 1: Do nothing

This option is not predicted to create any additional costs to the sectors and groups outlined above.

However failure to classify the “most suitable territories” as SPAs would leave the Scottish Government exposed to a high risk of EC infraction proceedings, which may result in substantial one off and recurring fines.

In addition it should be noted that the societal cost of not designating could be both large and irreversible relative to the current condition of the marine environment. The absence of management measures to conserve the identified features may produce future economic and social costs in terms of increased marine habitat and biodiversity degradation. The option to not classify holds the potential to undermine the overall ecological coherence of the Scottish SPA Network. This potentially large and irreversible societal cost avoided is presented within the benefits section of the ‘do classify’ scenario (option 2) to avoid double counting the same impact.

⁷ Developing the Evidence Base for Impact Assessments, ABP Mer

Option 2: Classify site as a Special Protection Area

Costs have been evaluated based on the implementation of potential management measures. Where feasible costs have been quantified, where this has not been possible costs are stated qualitatively. All quantified costs have been discounted in line with HM Treasury guidance using a discount rate of 3.5%. Discounting reflects the fact that individuals prefer present consumption over future consumption.

Aquaculture (Finfish)

There are three finfish aquaculture sites within the boundary of the SOG SPA. These are South Drumachro, Druimyeon Bay and East Tarbert Bay. There are a further seven additional finfish farms within 1km of the SPA. These are Larval Rearing Unit, Liath Eillean Loch Caolisport, Ormsary Broodstock Unit, Ormsary Family Unit, Ormsary Hatchery, Ormsary Smolt Unit, Quarantine Facility.

| Economic Costs on the Activity of Classification of the Site as an SPA | | | |
|---|---|---|---|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Assumptions for cost impacts | <ul style="list-style-type: none"> ▪ Additional assessment to support planning applications; and ▪ Additional assessment to support CAR Applications. | <ul style="list-style-type: none"> ▪ Additional assessment to support planning applications; and ▪ Additional assessment to support CAR Applications. | <ul style="list-style-type: none"> ▪ Additional assessment to support planning applications; ▪ Additional assessment to support CAR Applications; and ▪ Additional bird surveys. |
| Description of one-off costs | <p>Under all scenarios:</p> <p>SSPO estimates that there will be a 12 planning applications across the SPAs in the next five years. For the purposes of this assessment, it has been assumed that similar rates of application occur in subsequent periods of the impact assessment and the distribution of planning applications is in proportion to the number of existing sites in each SPA. It is assumed that the additional assessments will fall in 2017, 2022, 2027 and 2032 and the costs of each assessment will be £5.2k; and</p> <p>It has been assumed that additional assessment will be required to support CAR licence applications at a cost of £5.2k per licence application incurred once every 10 years for each finfish farm installation within 1km of a new marine SPA where these installations are not already within an existing site (SAC, SPA or MPA). The CAR licence applications are assumed to be in 2020 and 2030 for all installations.</p> | | |

| | | | |
|-------------------------------------|--|--|--|
| | For upper scenario only: It is assumed that a condition of the licence for each of the 12 planning applications will be to provide annual monitoring returns of bird entanglement at a cost of £0.5k per site per year starting in the year following submission of the planning application. | | |
| Description of recurring costs | ▪ None. | ▪ None. | ▪ None. |
| Description of non-quantified costs | ▪ Cost of uncertainty and delays in planning applications. | ▪ Cost of uncertainty and delays in planning applications. | ▪ Cost of uncertainty and delays in planning applications. |

Quantified Costs on the Activity of Classification of the Site as an SPA (£millions)

| | | | |
|---|-------|-------|-------|
| Total costs (2015–2034) | 0.031 | 0.031 | 0.050 |
| Average annual costs | 0.002 | 0.002 | 0.003 |
| Present value of total costs (2015–2034) | 0.023 | 0.023 | 0.035 |

Aquaculture (Shellfish)

There are four shellfish aquaculture sites within the boundary of the SPA. These are East Tarbert Bay, Loup Bay, Kilchamaig Bay and Traigh Bhan. There is an additional shellfish site within 1km of the SPA (Loch End).

Economic Costs on the Activity of Classification of the Site as an SPA

| | Lower Estimate | Intermediate Estimate | Upper Estimate |
|------------------------------|--|---|---|
| Assumptions for cost impacts | ▪ Additional assessment to support planning applications. | ▪ Additional assessment to support planning applications. | ▪ Additional assessment to support planning applications. |
| Description of one-off costs | Under all scenarios: It has been assumed that there will be 15 planning applications (new installations or extensions) that may be submitted at a national level in the next five years within or adjacent (within 1km) to new SPA proposals. For subsequent periods of the IA, | | |

| | | | |
|-------------------------------------|--|--|--|
| | it has been assumed that this number will reduce to 10 planning applications within new SPAs every 5 years. The total number of planning applications in each five year period has been assigned to individual new SPAs based on the relative number of existing installations within each new SPA. It is assumed that the additional assessments will fall in 2017, 2022, 2027 and 2032 and the costs of each assessment will be £5.2k. | | |
| Description of recurring costs | ▪ None. | ▪ None. | ▪ None. |
| Description of non-quantified costs | ▪ Cost of uncertainty and delays in planning applications. | ▪ Cost of uncertainty and delays in planning applications. | ▪ Cost of uncertainty and delays in planning applications. |

Quantified Costs on the Activity of Classification of the Site as an SPA (£million)

| | | | |
|--|-------|-------|-------|
| Total costs (2015–2034) | 0.021 | 0.021 | 0.021 |
| Average annual costs | 0.001 | 0.001 | 0.001 |
| Present value of total costs (2015–2034) | 0.015 | 0.015 | 0.015 |

Commercial Fisheries:

According to VMS-based estimates and ICES rectangle landings statistics, dredges, nephrops trawls and other gears (over-15m) and nephrops trawls, pots, hand fishing, dredges, other trawls and other gears (under-15m vessels) operate within the GIG SOG. The value of catches from the SOG area was £760,000 (over-15m vessels) and £655,000 (under-15m vessels, indicated from ICES rectangle landings data) (annual average for 2009–2013, 2015 prices). Landings from the over-15m vessels are predominantly into Tayinloan (52% by value), West Loch Tarbert (22%) and Girvan (6%). For the over-15m fleet, a total of 205 UK vessels operated in the SOG area in the period 2009-2013, comprising mainly nephrops trawls (106) and dredges (99). Dredges mainly operate across a central band and nephrops trawls mainly operate in the northern half of the proposed SPA.

Management measures for the scenarios have been developed based on the sensitivity and vulnerability of the features to the pressures caused by different gear types and SNH recommendations.

Updated ScotMap data (under-15m vessels) indicate that the annual average earnings from the SOG SPA were £1,229,000 for the period 2007-2011, with nephrops trawls contributing the highest value. The coverage for ScotMap interviews in the region was 61% (total value of reported landings from the Fisheries Information Network for those vessels included in the ScotMap value analysis expressed as a percentage of the total reported landings for all vessels <15m); the spatial representation of the value of fishing is more robust in regions where coverage is higher.

Non-UK VMS ping data indicate that 1 non-UK vessels was active in the SOG area in 2011 to 2013, from Norway. No information on gear types used by the Norwegian vessel was available.

| Economic Costs on the Activity of Classification of the Site as a SPA | | | |
|--|---|---|---|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Assumptions for cost impacts | <ul style="list-style-type: none"> ▪ No change to existing | <ul style="list-style-type: none"> ▪ 10% reduction in mobile bottom gear effort across the site ▪ 10% reduction in pelagic gear effort across the site | <ul style="list-style-type: none"> ▪ 30% reduction in mobile bottom gear effort across the site ▪ 25% reduction in pelagic gear effort across the site |
| Description of one-off costs | <ul style="list-style-type: none"> ▪ None | <ul style="list-style-type: none"> ▪ None | <ul style="list-style-type: none"> ▪ None |
| Description of recurring costs | <ul style="list-style-type: none"> ▪ None. | <ul style="list-style-type: none"> ▪ Loss of >15m fishing income (annual values, £ k): <ul style="list-style-type: none"> - dredges (49.6); - all trawls (24.7). ▪ Loss of <15m fishing income (annual values, £ k): <ul style="list-style-type: none"> - nephrops trawls (32.0); - dredges (5.3); - all other trawls (<0.1); | <ul style="list-style-type: none"> ▪ Loss of >15m fishing income (annual values, £ k): <ul style="list-style-type: none"> - dredges (148.8); - all trawls (74.0). ▪ Loss of <15m fishing income (annual values, £ k): <ul style="list-style-type: none"> - nephrops trawls (95.9); - dredges (15.8); - all other trawls (0.1); |
| Description of non-quantified costs | <ul style="list-style-type: none"> ▪ None. | <ul style="list-style-type: none"> ▪ Loss of value of catches from non-UK vessels using bottom contact gears in | <ul style="list-style-type: none"> ▪ Loss of value of catches from non-UK vessels using bottom contact gears in |

| | | | |
|--|--|--|--|
| | | <p>the SPA (possibly Norway (1 vessel)); and</p> <ul style="list-style-type: none"> Displacement impacts (additional fishing pressure on other areas, potential conflict with other vessels, additional steaming time/fuel costs, gear development and adaptation costs, and additional quota costs). | <p>the SPA (possibly Norway (1 vessel)); and</p> <ul style="list-style-type: none"> Displacement impacts (additional fishing pressure on other areas, potential conflict with other vessels, additional steaming time/fuel costs, gear development and adaptation costs, and additional quota costs). |
|--|--|--|--|

Commercial fisheries costs are presented below in terms of Gross Value Added (GVA). GVA more accurately reflects the wider value of the sector to the local area and economy beyond the market value of the landed catch. Stating costs purely in terms of landed value would overstate the true economic cost of not fishing. If fishermen are prevented from catching fish they forgo the landed value of those fish but subsequently forgo the payment of intermediate costs such as fuel (it is assumed that no fishing activity is displaced). Costs are also presented in terms of the reduction in full-time equivalent (FTE) employment. It is also possible that effort not continuing in the area could be transferred to other locations resulting in no or reduced loss of income.

| Quantified Costs on the Activity of Classification of the Site as a SPA (£Million) | | | |
|---|----------|----------|----------|
| Total change in GVA (2015–2034) | 0.000 | 0.983 | 2.950 |
| Average annual change to GVA | 0.000 | 0.049 | 0.148 |
| Present value of total change in GVA (2015–2034) | 0.000 | 0.723 | 2.170 |
| Direct and Indirect reduction in Employment | 0.0 jobs | 1.7 jobs | 5.1 jobs |

These estimates represent a worst-case scenario, based on the assumption of zero displacement of fishing activity. In reality, it is likely that some commercial fishing activity will be displaced to other grounds and hence it is likely that the impacts on employment are likely to be lower than those estimated. A recent Marine Scotland study on fisheries displacement in relation to the 2015 Nature Conservation MPA classifications⁸ indicated that a significant proportion of fishing effort affected by the classifications was likely to relocate elsewhere. In reality, vessels are likely to react to any management measures in place in order to maintain profitability (i.e. by changing target species/gear type) but this could add to their costs (i.e. the extra fuel cost associated with fishing elsewhere). This uncertainty surrounding the change in behaviour is the reasoning behind not attempting to quantify this cost impact. Other non-quantified costs include: potential conflict with other fishing vessels, environmental consequences of targeting new areas, longer steaming times and increased fuel costs, changes in costs and earnings, gear development and adaptation costs, and additional quota costs.

Energy Generation:

There are no energy generation developments within the SOG SPA boundary (or 10 km buffer); thus economic costs and management measures associated with energy generation in this SPA are described in light of known possible future developments.

The Mull of Kintyre (3 MW) tidal energy generation development, consented in May 2014, is planned to be located within 10 km of the SOG SPA boundary. There are currently no offshore wind or wave energy generation developments within the SOG SPA boundary (or 10 km buffer).

| Economic Costs on the Activity of Classification of the Site as an SPA | | | |
|---|--|---|--|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Assumptions for cost impacts | <ul style="list-style-type: none"> ▪ Additional assessment (HRA) of new wave and tidal development. | <ul style="list-style-type: none"> ▪ Additional assessment (HRA) of new wave and tidal development; and ▪ Additional monitoring of SPA features for new tidal developments. | <ul style="list-style-type: none"> ▪ Additional assessment (HRA) of new wave and tidal development; and ▪ Additional monitoring of SPA features for new wave and tidal developments. |
| Description of one-off costs | <ul style="list-style-type: none"> ▪ Additional assessment for | <ul style="list-style-type: none"> ▪ Additional assessment for | <ul style="list-style-type: none"> ▪ Additional assessment for |

⁸ <https://www.webarchive.org.uk/wayback/archive/3000/https://www.gov.scot/Topics/marine/marine-environment/mpanetwork/Displacement>

| | | | |
|--|---|--|--|
| | <p>licence application – £12,650 per licence application. Applications estimated for one tidal development (Mull of Kintyre) to be submitted in 2016.</p> | <p>licence application – £12,650 per licence application. Applications estimated for one tidal development (Mull of Kintyre) to be submitted in 2016; and</p> <ul style="list-style-type: none"> ▪ Additional monitoring of SPA features - £20k per development every three years following installation. Monitoring estimated for one tidal development (Mull of Kintyre) to be installed in 2016, thus monitoring conducted in 2019, 2022, 2025, 2028, 2031 and 2034. | <p>licence application – £12,650 per licence application. Applications estimated for one tidal development (Mull of Kintyre) to be submitted in 2016; and</p> <ul style="list-style-type: none"> ▪ Additional monitoring of SPA features - £20k per development every three years following installation. Monitoring estimated for one tidal development (Mull of Kintyre) to be installed in 2016, thus monitoring conducted in 2019, 2022, 2025, 2028, 2031 and 2034. |
| Description of recurring costs | <ul style="list-style-type: none"> ▪ None. | <ul style="list-style-type: none"> ▪ None. | <ul style="list-style-type: none"> ▪ None. |
| Description of non-quantified costs | <ul style="list-style-type: none"> ▪ Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> ▪ Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> ▪ Costs of project delays during consenting; potential impact on investment opportunities. |
| Quantified Costs on the Activity of Classification of the Site as an SPA (£Million) | | | |
| Total costs (2015–2034) | 0.013 | 0.133 | 0.133 |
| Average annual costs | 0.001 | 0.007 | 0.007 |

| | | | |
|--|-------|-------|-------|
| Present value of total costs (2015–2034) | 0.012 | 0.094 | 0.094 |
|--|-------|-------|-------|

Possible social impacts may flow from the economic costs resulting from classification. There may be reduced future employment opportunities if additional costs are significant and render development projects economically unviable or if delays arising from classification impact on potential investment opportunities. It is not possible to assess potential cost impacts relating to potential future development areas, such as the Sectoral Marine Plan options, that could be affected due to the uncertainty surrounding the location and nature of future development.

Military

3 military practice areas (Earadale (X5533), Jura Sound (X5623) and Gigha (X5534); All firing danger areas) overlap with the SOG SPA.

The features which overlap with military activities have not been described as vulnerable to MoD activities in this SPA. It is assumed that management relating to MoD activity will be coordinated through the MoD’s Maritime Environmental Sustainability Appraisal Tool (MESAT) which the MoD uses to assist in meeting its environmental obligations. This process will include operational guidance to reduce significant impacts of military activities on SPAs. It is assumed that the MoD will incur additional costs in adjusting MESAT and other MoD environmental assessment tools in order to consider whether its activities will impact on the conservation objectives of SPAs and also incur additional costs in adjusting electronic charts to consider SPAs. However, these costs will be incurred at national level and hence no site-specific cost assessments have been made.

Ports and Harbours

There are eight minor ports/harbours (Ardminish, Gallochoille, Gigha, Kennacraig, Machrihanish, Muasdale, Tayinloan and West Loch Tarbert) located within the SOG SPA boundary or within the 1km buffer. Therefore, management costs may be incurred under the assumption that minor ports/harbours will undertake development every 10 years (starting in 2025) within the assessment period (2015-2034).

There are no open disposal sites within the SOG SPA boundary (or 1km buffer).

| Economic Costs on the Activity of Classification of the Site as an SPA | | | |
|---|--|--|--|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Assumptions for cost impacts | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments in or adjacent to | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments in or adjacent to | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments in or adjacent to |

| | | | |
|-------------------------------------|--|--|--|
| | SPA to support licence applications. | SPA to support licence applications. | SPA to support licence applications. |
| Description of one-off costs | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments – £7.1k per application. Assessment estimated for eight minor ports (Ardminish, Gallochoille, Gigha, Kennacraig, Machrihanish, Muasdale, Tayinloan, West Loch Tarbert) to be submitted in 2025. | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments – £7.1k per application. Assessment estimated for eight minor ports (Ardminish, Gallochoille, Gigha, Kennacraig, Machrihanish, Muasdale, Tayinloan, West Loch Tarbert) to be submitted in 2025. | <ul style="list-style-type: none"> Additional assessment of new port/harbour developments – £7.1k per application. Assessment estimated for eight minor ports (Ardminish, Gallochoille, Gigha, Kennacraig, Machrihanish, Muasdale, Tayinloan, West Loch Tarbert) to be submitted in 2025. |
| Description of recurring costs | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. |
| Description of non-quantified costs | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. |

Quantified Costs on the Activity of Classification of the Site as an SPA (£Million)

| | | | |
|--|-------|-------|-------|
| Total costs (2015–2034) | 0.057 | 0.057 | 0.057 |
| Average annual costs | 0.003 | 0.003 | 0.003 |
| Present value of total costs (2015–2034) | 0.040 | 0.040 | 0.040 |

It should be noted that additional cost impacts could also arise as a result of consenting delays. The cost impacts and uncertainty associated with SPA classification may impact on potential investment opportunities.

Telecom Cables

There are two telecom cables (BT-HIE Segment 1.8 and Craighouse to Ormsary (BT-HIE Segment 1.9)) located within the SOG SPA boundary. Therefore,

management measures associated with the replacement of telecom cables (additional assessment) during the assessment period could lead to cost impacts.

| Economic Costs on the Activity of Classification of the Site as an SPA | | | |
|---|--|--|--|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Assumptions for cost impacts | <ul style="list-style-type: none"> Additional assessment to inform marine licensing for telecom cable replacement. | <ul style="list-style-type: none"> Additional assessment to inform marine licensing for telecom cable replacement. | <ul style="list-style-type: none"> Additional assessment to inform marine licensing for telecom cable replacement. |
| Description of one-off costs | <ul style="list-style-type: none"> Additional assessment to inform marine licensing – £2.6k per licence application. Applications estimated for two telecom cables (BT-HIE Segment 1.8, Craighouse to Ormsary) to be submitted in 2025. | <ul style="list-style-type: none"> Additional assessment to inform marine licensing – £2.6k per licence application. Applications estimated for two telecom cables (BT-HIE Segment 1.8, Craighouse to Ormsary) to be submitted in 2025. | <ul style="list-style-type: none"> Additional assessment to inform marine licensing – £2.6k per licence application. Applications estimated for two telecom cables (BT-HIE Segment 1.8, Craighouse to Ormsary) to be submitted in 2025. |
| Description of recurring costs | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. | <ul style="list-style-type: none"> None. |
| Description of non-quantified costs | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. | <ul style="list-style-type: none"> Costs of project delays during consenting; potential impact on investment opportunities. |

| Quantified Costs on the Activity of Classification of the Site as an SPA (£Million) | | | |
|--|--------|--------|--------|
| Total costs (2014–2033) | 0.005 | 0.005 | 0.005 |
| Average annual costs | <0.001 | <0.001 | <0.001 |
| Present value of total costs (2014–2033) | 0.004 | 0.004 | 0.004 |

It should be noted that additional cost impacts could also arise as a result of consenting delays. The cost impacts and uncertainty associated with SPA classification may impact on potential investment opportunities.

Public Sector:

The decision to classify the Sound of Gigha site as a SPA, would result in costs being incurred by the public sector in the following areas:

- Preparation of Marine Management Schemes
- Preparation of Statutory Instruments
- Development of voluntary instruments
- Site monitoring
- Compliance and enforcement
- Promotion of public understanding
- Regulatory and advisory costs associated with licensing decisions

Some of these costs will accrue at the national level and as such have not been disaggregated to site level.

| Site-specific Public Sector Costs (£Million, 2015-2034) | | | |
|---|-----------------------|------------------------------|-----------------------|
| | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Preparation of Marine Management Schemes | 0.000 | 0.000 | 0.000 |
| Preparation of Statutory Instruments | 0.000 | 0.004 | 0.004 |
| Development of voluntary measures | 0.000 | 0.000 | 0.000 |
| Site monitoring | 0.088 | 0.088 | 0.088 |
| Regulatory and advisory costs associated with licensing decisions | 0.009 | 0.009 | 0.009 |
| Total Quantified Public Sector Costs | 0.097 | 0.101 | 0.101 |

Total Costs

Total quantified costs are presented in present value terms. Commercial fisheries costs are presented in terms of GVA.

| Total Present Value of Quantified Costs (£Million, 2015-2034) | | | |
|--|---------------------------|------------------------------|---------------------------|
| Sector | Lower Estimate | Intermediate Estimate | Upper Estimate |
| Aquaculture (Finfish) | 0.023 | 0.023 | 0.035 |
| Aquaculture (Shellfish) | 0.015 | 0.015 | 0.015 |
| Energy generation | 0.012 | 0.094 | 0.094 |
| Military | <i>See National Costs</i> | <i>See National Costs</i> | <i>See National Costs</i> |
| Ports and harbours | 0.040 | 0.040 | 0.040 |
| Telecom cables | 0.004 | 0.004 | 0.004 |
| Public Sector | 0.097 | 0.101 | 0.101 |
| Total Present Value of Costs | 0.191 | 0.277 | 0.289 |

| GVA Impacts (£million 2015-2034) | | | |
|---|--------------|--------------|--------------|
| Commercial Fisheries | 0.000 | 0.723 | 2.170 |

| Total Non-Quantified Costs | | | |
|-----------------------------------|--|--|--|
| Scenario | Low | Intermediate | Upper |
| Sector/Group | | | |
| Aquaculture (Finfish) | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. |
| Aquaculture (Shellfish) | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. | <ul style="list-style-type: none"> Cost of uncertainty and delays in planning applications. |
| Commercial fisheries | <ul style="list-style-type: none"> None | <ul style="list-style-type: none"> Loss of value of catches from non-UK vessels and Displacement impacts | <ul style="list-style-type: none"> Loss of value of catches from non-UK vessels and Displacement impacts |

| | | | |
|--------------------|--|--|--|
| Energy generation | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. |
| Ports and harbours | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. |
| Telecom cables | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. | ▪ Costs of project delays during consenting; potential impact on investment opportunities. |

Scottish Firms Impact Test

This section is informed by evidence gathered during the consultation phase.

Businesses affected include some small and micro-sized firms. Additional costs imposed by the classification of the site have the potential to fall on small businesses.

Competition Assessment

Classification of the site as a SPA may affect marine activities where businesses operate within a given spatial area or require a spatial licence for new or amended operations.

Competition Filter Questions

Will the proposal directly limit the number or range of suppliers? e.g. will it award exclusive rights to a supplier or create closed procurement or licensing programmes?

No. It is unlikely that classification of the site as a SPA will directly limit the number or range of suppliers.

Will the proposal indirectly limit the number or range of suppliers? e.g. will it raise costs to smaller entrants relative to larger existing suppliers?

Limited / No Impact. Classification of the site as a SPA could affect the spatial location of commercial fisheries activity and may restrict the output capacity of this sector. However, restrictions on fishing locations may well be negated by displacement i.e. vessels fishing elsewhere. It is not expected that the distribution

of additional costs will be skewed towards smaller entrants relative to larger existing suppliers.

Classification could affect the preparation of applications, location of marine developments and activities, or requirements for marine developments which would apply to any developer of an affected licensed activity when preparing and submitting an application. Additional costs will potentially be incurred by developers submitting new licence applications, but they will apply to both new entrants and to incumbents looking to expand or alter their operations.

Will the proposal limit the ability of suppliers to compete? e.g. will it reduce the channels suppliers can use or geographic area they can operate in?

No. Classification of the proposed site will not directly affect firms' route to market or the geographical markets they can sell into.

Will the proposal reduce suppliers' incentives to compete vigorously? e.g. will it encourage or enable the exchange of information on prices, costs, sales or outputs between suppliers?

No. Classification of the proposed site is not expected to reduce suppliers' incentives to compete vigorously.

Test run of business forms

It is not envisaged that classification of the proposed site will result in the creation of new forms for businesses to deal with, or result in amendments of existing forms.

Legal Aid Impact Test

It is not expected that the SPA will have any impact on the current level of use that an individual makes to access justice through legal aid or on the possible expenditure from the legal aid fund as any legal/authorisation decision impacted by the SPA will largely affect businesses rather than individuals.

Enforcement, sanctions and monitoring

The relevant competent authorities for each activity / industry has responsibility for compliance, monitoring and enforcement of the requirement to protect the site. This must be done in accordance with Article 6 of the EU Habitats Directive.

Implementation and delivery plan

After classification of the site the relevant competent authorities must adhere to the legislative requirements so that adequate protection of the site occurs. Marine Scotland will be responsible for considering whether fisheries management measures are required.

Summary and recommendation

Option 2: Classify site as a Special Protection Area – is the preferred option.

The extent and quality of habitat and available food around Scotland's coast supports huge numbers of different species of seabirds. Few countries can match this and we have an international responsibility to protect what we have around Scotland. Therefore the appropriate action is to protect and maintain Scotland's seabird and water bird populations and meet the requirements of the EU Birds Directive.

Declaration and publication

I have read the Business and Regulatory Impact Assessment and I am satisfied that (a) it represents a fair and reasonable view of the expected costs, benefits and impact of the policy, and (b) that the benefits justify the costs. I am satisfied that business impact has been assessed with the support of businesses in Scotland.

Signed:

A handwritten signature in black ink, appearing to read 'Mairi Gougeon', written in a cursive style.

Date:

03 December 2020

Mairi Gougeon, Minister for Rural Affairs and the Natural Environment

Scottish Government Contact point:

marine_conservation@gov.scot

Appendix A - Ecosystem Services Benefits, Sound of Gigha

| Summary of Ecosystem Services Benefits arising from Classification of the Site as an SPA | | | | | | | | |
|--|--|---------------------------------------|---|---|---|---|-------------------|---|
| Services | Relevance to Site | Baseline Level | Estimated Impacts of Classification | | | Value Weighting | Scale of Benefits | Confidence |
| | | | Lower | Intermediate | Upper | | | |
| Fish for human consumption | Moderate, contributes to the food web. | Stocks not at MSY | Nil | Low, recovery of fish stocks possible in medium to long term from protection of benthic features | Moderate, recovery of fish stocks possible in medium to long term due to extent of protection of benthic features | Low | Minimal - Low | Moderate |
| Fish for non-human consumption | | Stocks reduced from potential maximum | | | | | | |
| Gas and climate regulation | Minimal | Minimal | Nil | | | Low | Nil | High |
| Non-use value of natural environment | Moderate, bird species, and contribution of the site to SPA network, have non-use value. | Non-use value of the site may decline | Minimal | Low, maintain features of site | Moderate, protection of features of site from decline, possibly allowing some recovery | Low - Moderate, range of features contributes to maintaining marine biodiversity | Low | Moderate, extent of features, responses to management measures, and value to society all uncertain. |
| Recreation | Moderate, features have recreational value, but there are substitutes. | Value of site may decline | Minimal, protection of features of site | Low - Moderate, protection of features of site that contribute to recreation, possibly allowing some recovery | | Low, for individual features. Moderate for opportunity to understand response of range of features to management. | Low | Low – Moderate, extent to which research uses site in future uncertain. |

| Summary of Ecosystem Services Benefits arising from Classification of the Site as an SPA | | | | | | | | |
|--|---|---------------------------|--|---|-------|-----------------|-------------------|---|
| Services | Relevance to Site | Baseline Level | Estimated Impacts of Classification | | | Value Weighting | Scale of Benefits | Confidence |
| | | | Lower | Intermediate | Upper | | | |
| Research and Education | Moderate, features have research value, but there are substitutes | Value of site may decline | Minimal, protection of features of site | Low, protection of key characteristics of site from decline, improving future research opportunities. Classification may play role in communicating management needs. | | Low | Low | Low – Moderate, extent to which research uses site in future uncertain. |
| Total value of changes in ecosystem services | | | Minimal - low for lower and intermediate scenarios, Low – moderate for upper scenario. | | | | Low | Moderate |



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