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Crown Estate Scotland Draft Corporate Plan 2020-2023 SEA Environmental Report

Strategic Environmental Assessment
Prepared by LUC
August 2019

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Non-Technical Summary

Introduction to the Crown Estate Scotland Draft Corporate Plan

The Draft Corporate Plan 2020-2023 is a high level document, providing a strategic framework for Crown Estate Scotland's proposed activities[1]. Delivery of the Final Corporate Plan will contribute to wider policy priorities of Scottish Ministers and will be aligned with wider Scottish Government policy.

The Draft Corporate Plan includes five strategic objectives and associated outcomes, which are each supported by proposed actions and targets that would feature in annual business plans. It also describes the different roles which Crown Estate Scotland fulfils as an investor, enabler, asset manager and coordinator, and includes a section on how capital will be raised and reinvested..

It is important to note that, although all managers of the Scottish Crown Estate are required to maintain and enhance capital value and revenue, the Scottish Crown Estate Act 2019 requires Crown Estate Scotland and other managers to balance all commercial decisions against social and environmental considerations. This ensures that social and environmental wellbeing are embedded in the decision-making process for all commercial decisions.

What is Strategic Environmental Assessment?

Strategic Environmental Assessment (SEA) is a way of considering the environment when preparing public plans, programmes and strategies. It identifies potential significant environmental effects and, where necessary, describes how these effects can be avoided or reduced. Through consultation, SEA also provides an opportunity for the public to express their views on proposed policies and their potential environmental impacts.

In this case, SEA is being used to assess the likely environmental effects of the Crown Estate Scotland Draft Corporate Plan.

How was the Strategic Environmental Assessment undertaken?

SEA is an assessment of the likely significant environmental effects of the Draft Corporate Plan and the alternatives to it. The Environmental Report considers the environmental effects of the Draft Corporate Plan as they would influence activities across each of the four portfolios.

The assessment identifies positive and negative environmental effects and the significance of these; considers whether they would be temporary or permanent; and, notes where they would arise in the short, medium or long term. It also distinguishes between effects arising directly from the Draft Corporate Plan and any 'secondary' effects, which would indirectly impact on the environment.

Which reasonable alternatives have been considered?

The assessment considers the effects of the actions set out in the Draft Corporate Plan which result in environmental effects, scoping out actions which relate to procedural or administrative arrangements.

There are two types of alternative included within the SEA. Firstly, we consider alternatives considered to actions presented as the preferred option in the Draft Corporate Plan. Secondly, we consider alternatives that are a matter of emphasis to be reflected in future actions or lower tier plans. The latter types of alternatives considered for the actions include focusing activity on different types of development, or different levels of community involvement in decision making.

[1] Crown Estate Scotland is the trading name of Crown Estate Scotland (Interim Management). Throughout this document the 'Scottish Crown Estate' or the 'Estate' or the 'assets' refers to the land and property currently managed by Crown Estate Scotland.

What are the key environmental challenges relevant to the Crown Estate Scotland Draft Corporate Plan?

The rural assets includes designated sites, including a range of habitats from dry upland heath to blanket bog, and the River Spey SAC which is home to protected species including freshwater pearl mussel. Some of Crown Estate Scotland's coastal assets are close to machair habitat, and in regards to the seabed, the marine environment includes a number of Nature Conservation Marine Protected Areas. Key existing pressures on biodiversity, flora and fauna across Scotland include climate change, invasive species and land use changes and management practices.

Scotland's islands and coastal communities have an important relationship with the activities and management of Scotland's coasts, however, the island communities have experienced a declining population with associated risks to services. Across Scotland there is an aging population, bringing new challenges and opportunities for service provision and recreation. The rural estates include over 500 tenants across the four locations of Applegirth, Fochabers, Glenlivet and Whitehill.

Scotland's soils are diverse and range from rare coastal soils to the carbon rich soils of the uplands such as the rural estates, including peatland, and which is an important carbon sink. Threats to soils include coastal erosion, which may impact on coastal communities, and land management practices which result in loss of soil or damage to carbon rich soils.

Scottish coastal waters are in good condition, which is important in supporting a number of coastal activities such as aquaculture. Within the rural estate, the quality of river water is also important for fishing, and recent trends have shown significant improvements.

Air pollution in Scotland is primarily associated with road transport and industrial emissions. Emissions from shipping are also significant in relation to a range of pollutants. Rising levels of road transport mean that air pollution is an issue where further improvements needs to be made to reduce impacts on health and the environment. Development in the marine environment and within rural areas can impact on levels of land-based and marine traffic associated with these developments.

All of the Scottish Crown Estate is likely to experience some form of effects from climate change ranging from temperature increases to rising sea levels. Across Scotland, temperatures are projected to increase over the next century with hotter summers and milder winters expected. In addition to projected temperature rises, more unpredictable and extreme weather events such as heavier rain days, particularly during the winter months, are also expected to increase. All of these changes will impact across Crown Estate Scotland's assets, with sea level rise having particular impacts on activities in coastal areas. Adapting activities to take account of future projected climate changes is particularly important when planning future activities.

Scotland's historic environment encompasses thousands of historic buildings and monuments, many of which are located on Crown Estate Scotland assets. There are several important cultural heritage sites located across Scotland's coast and within the marine environment. There are numerous threats facing Scotland's historic assets with most related to significant changes within the wider environment. Key impacts on the historic environment relate to increasing development and land use change, and the impacts of climate change which could damage historic assets.

Scotland's landscapes play an important role in the visitor experience and generating socio-economic benefits derived from the tourism industry. Further tangible benefits are derived from providing opportunities for recreation. Scotland's geodiversity is reflected in the range of landscapes and the seabed habitats and sediments. Climate change is a key pressure on landscape, including sea level rise, alongside the pressures of development and land use change.

The natural and built environment contributes a range of material assets including renewable energy infrastructure, ports and harbours and aquaculture. On the rural estates, agriculture and forestry, alongside recreation are key land uses. Scotland's commitment to reducing emissions supports the expansion of the renewable energy industry. Land management practices affect the use of land for agriculture and forestry.

Which existing environmental protection objectives are relevant?

There are many established environmental protection objectives which form the context for the assessment. International and national level policies and strategies aim to protect and enhance our environment. Biodiversity objectives focus on sites and species which are of particular value, and aim to protect and improve natural heritage networks. Objectives for population and human health aim to prevent or limit exposure to environmental harm and nuisance and support health through physical activity and access to open space. Objectives for soil seek to protect valuable soil resources including the protection of peatland and remediation of contaminated land. Objectives for water and air aim to reduce pollution, and to reverse the effects of past emissions. There is particular focus on balancing the competing demands on the marine environment. Landscape objectives protect our most scenic areas, reflect the importance of the interaction between people and the land, and aim to enhance areas where landscape qualities have been eroded over time. The assessment of seascape as an element of landscape value is also recognised. Cultural heritage objectives range from protection of World Heritage Sites and Marine Protected Areas, to recognition and management of more locally important buildings and archaeology, and their wider setting. The role of the marine environment in renewable energy generation is clearly recognised, alongside the role of land based assets such as forestry and agriculture. Cutting across all of these objectives, international and national climate change objectives are expressed in targets for reducing greenhouse gas emissions, and supporting adaptation to changing weather patterns.

Strategic Environmental Assessment findings

The Draft Corporate Plan will have largely positive effects. No significant adverse effects were identified in the assessment of the Draft Investment Strategy and some significant positive effects were identified for soil, water and biodiversity, fauna and flora. This is directly related to Action 23, which requires consideration of Natural Capital in decision making. The description of the environmental effects of the actions scoped in to the assessment has been grouped according to their relationship with Crown Estate Scotland's assets.

Coastal and Marine

For the actions relating to coastal and marine assets, these reflect where investment could be focused to support marine and coastal development, encompassing development at a range of scales. It also includes actions which support the role of a Coastal Asset Strategy in guiding and prioritizing investment and maintenance of coastal assets. Actions also support the delivery of environmental and socio-economic benefits to rural communities.

The direct effects of construction and development of coastal assets across a selected number of locations could result in minor adverse effects on biodiversity, flora and fauna, soil, water, cultural heritage and the historic environment and landscape and geodiversity as a direct result of development and operation impacting on designated and undesignated assets. Minor positive effects on soil are identified where actions could support the redevelopment of vacant and derelict land. Similarly for water, opportunities for minor positive effects are identified where development resulting from the actions could improve flood risk management. In relation to cultural heritage and the historic environment minor positive effects are identified in relation to potential development which could improve the quality of the wider built environment, including development of vacant and derelict land or buildings.

Increased traffic movements resulting from development may result in minor effects on air. However development may also bring benefits to population and human health resulting from tourism and job creation, alongside Actions which involve the inclusion of local communities in decision making which result in significant positive effects. Measures associated with potential investment and development of more resilient coastal and marine infrastructure will bring significant positive effects in relation to climatic factors. The potential for significant positive effects was identified in relation to a number of Actions which could facilitate renewable energy development, contributing to reducing carbon emissions. However, potential development and operational activities, such as shipping and construction, may contribute to increased emissions.

For material assets, development that facilitates renewable energy and development of commercial facilities has a minor positive effect, however minor negative effects are identified where potential development could require significant use of energy and other materials.

Rural Assets

Actions which relate to the rural assets include those that support planning consent and delivery of development, including actions that enhance the value of the rural and coastal estate and achieve wider environmental and community benefit. This includes actions which support local regeneration and work in partnership with local communities and other partners. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners has potential to result in significant positive effects for biodiversity, fauna and flora, population and human health, soils, water quality and flood risk, climatic factors, landscape and geodiversity and material assets. Positive effects on population and human health are also identified from development which supports the viability of local communities.

Development in rural and coastal areas could result in direct minor adverse effects arising from development impacting on designated and undesignated assets for biodiversity, flora and fauna, emissions which affect air quality and climatic factors, cultural heritage and the historic environment, landscape and geodiversity. The assessment identified the need to ensure the consideration of the contribution of cultural heritage and historic environment within the Natural Capital approach. Significant positive effects on material assets could arise from actions which could facilitate the development or renewable energy or which promote the sustainable use of resources.

Cumulative, secondary and synergistic effects

The assessment has considered the scope for implementation of the draft Corporate Plan to result in cumulative effects where the effects of different Actions interact or where the Corporate Plan could interact with other plans, programmes or strategies. Cumulative effects may result from the addition of several smaller effects, indirect or secondary effects or effects which are greater or different from the sum of individual effects.

The assessment found no areas where the draft Corporate Plan is likely to result in significant adverse cumulative effects.

The assessment found a number of areas where the effects of Actions to support or facilitate development could result in minor adverse cumulative effects. This includes effects on biodiversity, flora and fauna, air quality, landscape and geodiversity and cultural heritage and the historic environment. These cumulative effects depend on the scale and location of effects.

The assessment found several areas where more than one Action could combine to result in minor positive cumulative effects. These include biodiversity, flora and fauna, population and human health, soil, water, cultural heritage and the historic environment and material assets.

The most significant areas where positive cumulative effects are anticipated are water and climatic factors.

What measures could be put in place to avoid, reduce or manage the environmental effects of the Draft Corporate Plan?

The assessment identified no Actions judged likely to result in significant adverse effects. Consideration of mitigation measures therefore focused on opportunities to avoid, reduce or manage minor adverse effects.

Crown Estate Scotland is developing its decision making processes to ensure the requirements of the 2019 Act are met. A significant proportion of recommended mitigation measures are designed to ensure that these decision making processes take full account of environmental considerations, in turn influencing implementation. Several recommended mitigation measures are intended to inform the preparation of more detailed plans and strategies that will flow from the Corporate Plan, once adopted. Again, these should help ensure that environmental considerations are embedded in the way that the Scottish Crown Estate is managed. In some cases, mitigation measures are intended to build on the commitment to adopt a Natural Capital approach or to make explicit existing commitments to align Crown Estate Scotland's work with national and local planning policies.

The assessment also identified a range of ways in which the positive effects of the draft Corporate Plan could be enhanced. Again, many of these recommendations relate to decision making processes and more detailed plans and strategies. They are designed to ensure that the work of Crown Estate Scotland optimises opportunities to secure wider enhancements across a broad range of environmental topics.

What monitoring is proposed?

Crown Estate Scotland is currently developing the Value Project and it is anticipated that indicators associated with monitoring for this this could potentially be used to embed the SEA monitoring into wider monitoring of Crown Estate Scotland Activities. This will be further considered as the Value Project is finalised and will be described in the Post Adoption Statement.

How can I comment on this Environmental Report?

The consultation on the Draft Corporate Plan will run for a ten week period from 31st August to 25th November 2019. Comments on the Draft Corporate Plan and the Environmental Report can be submitted via the Scottish Government Citizen Space website: https://consult.gov.scot/crown-estate-strategy-unit/2020-23-corporate-plan . Request for hard copies of the Environmental Report can be made to corporate@crownestatescotland.com

Consultation questions on the SEA Environmental Report are as follows:

1) (a) Do you have any comments on the environmental baseline information referred to in the Environmental Report?

   (b) Are you aware of further information that could be used to inform the assessment findings?

2) (a) Do you agree with the assessment findings?

   (b) Are there other environmental effects arising from the Draft Corporate Plan?

3) What are your views on the alternatives considered?

4) What are the most significant environmental effects which should be taken into account as the Draft Corporate Plan is finalised?

5) How can the Draft Corporate Plan be enhanced to maximise positive environmental effects?

6) What do you think of the proposed approach to mitigation and monitoring proposed in chapters 5 and 6?

Following the consultation period, the consultation responses will be analysed and Crown Estate Scotland will finalise and publish the Corporate Plan 2020-2023. After the Corporate Plan 2020-2023 is adopted a Post Adoption Statement will be produced. This Statement will set out how the SEA and the views received in the consultation processes have been taken into account.

1 Introduction

Purpose of this report

1.1 Crown Estate Scotland is currently preparing a Draft Corporate Plan ("the Draft Corporate Plan") which will set out its strategic direction for 2020-23, detailing proposals to invest in property, natural resources and people to deliver wider value for Scotland.

1.2 LUC was appointed by Crown Estate Scotland in April 2019 to undertake a Strategic Environmental Assessment (SEA) of the Draft Corporate Plan. The SEA of the Draft Corporate Plan presents an important opportunity in which environmental considerations are brought to the forefront of the decision making process and influence the outcome of the Corporate Plan.

1.3 The purpose of this Environmental Report is to present the findings of the SEA process.

Key facts

1.4 **Table 1.1** sets out the key facts about the Draft Corporate Plan.

Table 1.1 Key facts

Responsible Authority	Crown Estate Scotland
Title	Draft Corporate Plan 2020-2023
Subject	Draft Corporate Plan 2020-2023
Period Covered	2020-2023
Area covered by the policy	Scotland
What prompted the preparation of the policy?	The Crown Estate Scotland Framework Document sets out Crown Estate Scotland's functions, responsibilities and powers. A requirement of this Framework Document is to develop and publish a Corporate Plan, setting out Crown Estate Scotland's strategic aims and objectives.
Purpose and/or objectives of the policy	The draft Corporate Plan 2020-23 outlines Crown Estate Scotland's strategic direction and overall objectives (as informed by stakeholder research and feedback) and the proposed approach for how these may be delivered. The Plan will be aligned with wider Scottish Government policy (including Scottish Crown Estate Strategic Management Plan, the National Performance Framework, the Energy Strategy, the National Marine Plan, Climate Change Plan and the Economic Strategy) and will provide significant opportunities to deliver on core Scottish Government priorities including creating a net zero emissions economy, supporting sustainable food production and working with others to help rural and coastal communities to thrive.
Contact	corporate@crownestatescotland.com

Crown Estate Scotland

1.5 The Scotland Act 2016[2] paved the way for devolution of Crown Estate assets in Scotland by enabling UK Government to establish a 'transfer scheme'. Devolution of management of the assets to Scottish Ministers took place on 1 April 2017. Net revenue is passed to the Scottish Government.

[2] Scotland Act 2016 (Statutory Instrument 2016/c.11)

1.6 Crown Estate Scotland (Interim Management) (with the trading name of 'Crown Estate Scotland') was established to receive the Scottish functions of the Crown Estate Commissioners.

1.7 Crown Estate Scotland's strategic aims are aligned with the Scottish Government's purpose of creating a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive growth. The Draft Corporate Plan will align with Scottish Government's published Economic Strategy[3] and National Performance Framework[4].

1.8 Crown Estate Scotland operates under various different pieces of legislation. The Crown Estate Act 1961 is currently the key primary legislation. This established the commercial lines on which The Crown Estate (and then Crown Estate Scotland) must operate. Under the Act, there is a duty to maintain and enhance the capital value of the estate and its revenue. It also includes a duty to ensure 'good management' as well as securing best consideration. In practice, this means obtaining market value (for leases, sales and other transactions) while contributing to Scotland's economic, social and environmental well-being and prosperity.

1.9 The new primary legislation governing management of the assets is the **Scottish Crown Estate Act 2019**[5] ('the Act'). This is in the process of being commenced. Until then, Crown Estate Scotland operates under the Crown Estate Act 1961, while working within the spirit of the new Act. The Scottish Crown Estate Act 2019:

- sets a duty on Scottish Ministers to develop a strategic management plan setting out Scottish Ministers' objectives, priorities and policies in relation to the management of the Scottish Crown Estate. All managers of the Scottish Crown Estate, including Crown Estate Scotland, are required to align their activities with this plan;
- allows on a case-by-case basis for eligible bodies ('managers') (e.g. local authorities, Scottish harbour authorities, Scottish Ministers, other public bodies and community organisations), to take on responsibility for specific assets, potentially in partnership or with support (for instance, Crown Estate Scotland may act as coordinator of geo-spatial or financial information). The Act also recognises that some assets may need to continue being managed at the national level;
- sets a duty on all managers, including Crown Estate Scotland, to maintain and enhance the value of the assets in a way that supports sustainable development generally, and economic development, regeneration, social and environmental well-being specifically. Although all managers of the Scottish Crown Estate are required to maintain and enhance capital value and revenue, the Act requires Crown Estate Scotland and other managers to balance all commercial decisions against social and environmental considerations. This ensures that social and environmental wellbeing are embedded in the decision-making process for all commercial decisions;
- contains further provisions relating to managers' powers and duties, reporting, financial matters and ministerial directions. The Act therefore creates a new national framework to underpin a mix of national and local management of assets by different organisations in future; and,
- removes the 'Interim Management' from Crown Estate Scotland's full name, signalling a long-term role for the organisation and helping give staff and tenants more certainty.

1.10 On behalf of Scottish Ministers, Marine Scotland is currently consulting on the Draft Strategic Management Plan required under the Scottish Crown Estate Act 2019. The Strategic Management Plan is being subject to SEA, with an Environmental Report published for consultation together with the Draft Strategic Management Plan. Crown Estate Scotland's Draft Corporate Plan sits under the Strategic Management Plan.

[3] Scottish Government, 2015. *Scotland's Economic Strategy* [pdf]. Available at: https://beta.gov.scot/publications/scotlands-economic-strategy/

[4] Scottish Government, 2016. *National Performance Framework* [pdf]. Available at: http://www.gov.scot/About/Performance/scotPerforms

[5] Scottish Crown Estate Act 2019 (Statutory Instrument 2019/asp 1)

Study area

1.11 Crown Estate Scotland is a public corporation, responsible for the management of marine, coastal, built environment and rural assets across Scotland. These assets are illustrated on **Figure 1** in **Appendix 3**, and currently include:

- 590km^2 of foreshore around Scotland including 5,800 moorings and some ports and harbours.
- Leasing of virtually all seabed out to 12 nautical miles covering some 750 fish farming sites and agreements with cables & pipeline operators.
- The rights to offshore renewable energy and gas and carbon dioxide storage out to 200 nautical miles.
- 37,000 hectares of rural land with agricultural tenancies, residential and commercial properties and forestry on four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill).
- Rights to fish wild salmon and sea trout in river and coastal areas.
- Rights to naturally-occurring gold and silver across most of Scotland.
- Retail and office units at 39-41 George Street Edinburgh (2,760 sq. m).

Crown Estate Scotland Draft Corporate Plan

1.12 The Draft Corporate Plan 2020-2023 is a high level document, providing a strategic framework for Crown Estate Scotland's proposed activities[6]. Delivery of the Final Corporate Plan will contribute to wider policy priorities of Scottish Ministers and will be aligned with wider Scottish Government policy. The SEA reflects the content of the Draft Corporate Plan only and does not assess the wider activities of Crown Estate Scotland.

1.13 The final plan that follows this consultation will be aligned with wider Scottish Government policy, notably the Scottish Crown Estate Strategic Management Plan, the National Performance Framework, the Energy Strategy, the National Marine Plan, Climate Change Plan and the Economic Strategy. Indeed, the Estate provides significant opportunities to deliver on core Scottish Government policy priorities including creating a net zero emissions economy, providing opportunities for local organisations to manage assets, supporting sustainable food production and working with others to help rural and coastal communities to thrive.

1.14 The Draft Corporate Plan 2020-2023 includes five strategic objectives and associated outcomes, which are each supported by proposed actions and targets that would feature in annual business plans. It also describes the different roles which Crown Estate Scotland fulfils as an investor, enabler, asset manager and coordinator, and includes a section on how capital will be raised and reinvested.

1.15 In line with Scottish Ministers' duties in the Scottish Crown Estate Act 2019, the Scottish Government is currently consulting on the Draft Strategic Management Plan covering the entire Estate. The Draft Corporate Plan will align with this Strategic Management Plan. Crown Estate Scotland annual business plans will contribute to the delivery of strategic objectives set out in the Final Corporate Plan. The Rural Assets Strategy, Coastal Asset Strategy and Estate Plans will be informed by and aligned with the Final Corporate Plan.

[6] Crown Estate Scotland is the trading name of Crown Estate Scotland (Interim Management). Throughout this document the 'Scottish Crown Estate' or the 'Estate' or the 'assets' refers to the land and property currently managed by Crown Estate Scotland.

Strategic Environmental Assessment

1.16 The SEA Directive[7] is implemented by the Environmental Assessment (Scotland) Act 2005 ('the 2005 Act')[8], and is a means to judge the likely impact of the plan, programme or strategy on the environment and to seek ways to minimise adverse effects, if likely to be significant.

1.17 The SEA process comprises a number of stages:

- Pre-screening.
- Screening (preparation of a Screening Report).
- Scoping (preparation of a Scoping Report).
- Environmental Assessment (preparation of an Environmental Report).
- Main consultation on the Environmental Report.
- Preparation of a Post-adoption SEA Statement.
- Monitoring the significant environmental effects of implementing the Final Corporate Plan.

1.18 A combined Screening/Scoping report was prepared and submitted to the SEA Gateway on 11th July 2019.

Structure of the Environmental Report

1.19 This chapter has described the background to the Draft Corporate Plan and the requirement to undertake SEA. The report is structured into the following chapters, and bold highlights illustrate where these meet the requirements of the 2005 Act.

- Chapter 1: Outlines the **contents and main objectives** of the Draft Corporate Plan 2020-2023 and its **relationship with other qualifying plans and programmes.**
- Chapter 2: Describes the approach to the assessment including the **difficulties encountered**.
- Chapter 3: Describes the**, the environmental baseline including key trends and environmental problems.**
- Chapter 4: Describes the **significant environmental effects** expected from the Crown Estate Scotland Draft Corporate Plan 2020-2023 and the **reasonable alternatives**.
- Chapter 5: Describes the **mitigation and enhancement** measures proposed.
- Chapter 6: Describes the approach to **monitoring.**
- Chapter 7: Sets out the next steps for the Draft Corporate Plan 2020-2023 and for the environmental assessment process.

1.20 The main body of the report is supported by a number of appendices:

- Appendix 1: Review of relevant plans, programmes, strategies and Environmental Protection Objectives.
- Appendix 2: Consultation Authorities responses to the Screening/Scoping Report.
- Appendix 3: Baseline maps.
- Appendix 4: Draft Corporate Plan content as screened for the SEA.
- Appendix 5: SEA assessment tables and summary tables of SEA scores.
- Appendix 6: Summary of relevant strategies and regulatory requirements.

[7] Directive 2001/42/EC
[8] The Environmental Assessment (Scotland) Act 2005

2 Approach to the Assessment

2.1 This is a strategic level assessment of a high level Draft Corporate Plan. The approach to the assessment reflects the extent and level of detail included in the Draft Corporate Plan. The SEA has been undertaken in a systematic way, and additional detail on the potential scope of the actions was provided by Crown Estate Scotland in order to ensure the assessment closely reflects the content and influence of the Draft Corporate Plan 2020-2023.

SEA baseline

2.2 The purpose of the environmental baseline is to provide a description of the environmental characteristics against which the changes arising from the Draft Corporate Plan 2020-2023 are assessed. It is usual to consider how the environmental baseline would have continued to evolve in the absence of the plan that is being assessed. Environmental trends are therefore taken into account.

Environment baseline information

2.3 The environmental baseline for the SEA is structured around the following SEA topics, all of which have been **scoped in** to the SEA:

- Biodiversity, flora and fauna;
- Population and human health;
- Soil;
- Water;
- Air;
- Climatic factors;
- Cultural heritage, including architectural and archaeological heritage;
- Landscape and geodiversity; and,
- Material assets.

2.4 The baseline is related to Crown Estate Scotland's assets and is structured around these topics. Maps of the environmental baseline are contained in **Appendix 3**, and illustrate the location of Crown Estate Scotland assets in relation to key environmental baseline data.

SEA Framework

2.5 The SEA Framework, which will be used to assess the likely environmental and sustainability effects of the Plan, is outlined in the Screening/Scoping Report of the Draft Corporate Plan (June 2019). To take into account comments made by the Consultation Authorities, the wording for four SEA objectives has been revised. The new wording for the SEA objectives is as follows:

- **Water** – Protect and enhance the state of the water environment.
- **Air** – Improve air quality and reduce levels of nuisance associated with poor air quality.
- **Climatic factors** - Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.
- **Material assets** - Enhance material assets and support the sustainable use and management of existing material assets.

Defining Crown Estate Scotland activities for the SEA

2.6 The Draft Corporate Plan sets out how Crown Estate Scotland will fulfil the statutory duties set out in the Act to maintain and enhance the value of the assets in a way that supports sustainable development generally, and economic development, regeneration, and social and environmental well-being specifically. As outlined in Chapter 1, Crown Estate Scotland fulfils a number of different roles in relation to the management of its assets, with some roles focusing more on activities such as facilitation and partnership working, and others influencing direct change in the management of the assets.

2.7 As part of the process to inform the assessment, an initial exercise was undertaken to inform the SEA of the Draft Corporate Plan to ensure that the methodology is focused on those aspects with environmental effects, and identifying those aspects without direct or indirect environmental effects.

2.8 The approach to assessing significance, mitigation and enhancement is also set out in the following paragraphs to provide clarity in understanding the approach to assessment.

2.9 To assist with identifying the aspects of the Draft Corporate Plan which will have no direct or indirect environmental effects, the actions have been categorised into different areas of activity. This approach recognises the wide scope of activities undertaken by Crown Estate Scotland, some of which are expected to have no potential direct or indirect environmental effects because they are administrative in nature; or they are related to the preparation of guidance which would have no environmental effect; or where potential environmental effects would only arise following a future additional action to implement them e.g. recommended actions for industry following from the findings of research part-funded by Crown Estate Scotland.

2.10 Based on information available on the Draft Corporate Plan, these categories of activity are as follows:

- Partnership working.
- Developing guidance.
- Ensuring efficient and effective internal process in place.
- Reviewing pilot projects.
- Research and development.
- Capital investment[9].
- Providing developer access to seabed within framework of existing plans and strategies through leasing opportunities.
- Exploring novel development opportunities.

2.11 **Appendix 4** the Draft Corporate Plan actions and their categorisation. Those activities which result in capital investment or development are scoped in to the assessment. This is indicated in the table in Appendix 4 by yellow shading. The actions which are scoped in to the assessment are summarised below in **Table 2.1**.

[9] Crown Estate Scotland takes a plan-led approach. Any capital investment in, for example, built environment would align with relevant statutory plans (e.g. Local Development Plans) whenever there is one in place. This helps ensure that our activity is aligned with stakeholder / community interests and reflects considerations related to the environment, equalities etc.

Table 2.1 Draft Corporate Plan actions scoped in to the assessment

Action number	Action
2	Invest to support blue economy expansion.
13	Implement a three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development.
14	Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy, with a focus on: • Ports and harbours; • Boat-based tourism; • Coastal development land.
15	Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration.
19	Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models.
20	Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial).
21	Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy.
23	Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.
25	Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).
26	Support innovation through co-investing with tenants / partners.
27	Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.

Proposed approach to the assessment

2.12 Crown Estate Scotland assets vary significantly from small scale local level assets to large scale assets of national significance. The assessment of likely significant effects needs to take this wide range of potential scales into account. As such the assessment framework is structured to clearly set out at the start of the assessment framework the assets which that objective and target relate to.

2.13 The assessment framework takes into account the following:

- how those assets are influenced by the action and target;
- how the affected assets relate to designated or sensitive areas for that SEA topic;
- how the existing policy framework and regulatory requirements relate to requirements of that activity;
- what the Draft Corporate Plan says about minimising negative effects and maximising benefits;
- a description of the net effect of the Draft Corporate Plan;
- a score; and,
- mitigation and enhancement.

2.14 Schedule 2 of the 2005 Act identifies criteria for determining the likely significance of effects on the environment (see **Table 2.2**) which will be reflected in the approach to scoring set out in the assessment.

Table 2.2 Criteria for assessing likely significant effects

SEA Assessment Criteria	Breakdown and Description
(a) the probability, duration, frequency and reversibility of the effects	Probability Low – Not likely to have an effect Medium High – Highly likely to have an effect Duration Short-term – 0-1 years Medium-term – 1-2 years (up to the end of strategy period) Long-term – 2+ years (beyond the end of the strategy period) Frequency Continual; defined by number of occurrences; or intermittent Reversibility Whether the effect can be reversed (i.e. can the receptor return to baseline condition) without significant intervention
(b) the cumulative nature of the effects	Where several options each have insignificant effects but together have a significant or combined effect. This includes synergistic effects, which is when effects interact to produce a total effect greater than the sum of the individual effects.
(c) the transboundary nature of the effects	Effects beyond Scotland's boundary.
(d) the risks to human health or the environment	Whether the impact of the effect would present a risk for people and the environment.
(e) the magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)	Magnitude High – High proportion of the receptor affected Medium Low – Low proportion of the receptor affected Spatial extent National/Transboundary – Effects on Scotland or England International – Effects extending to the UK or beyond
(f) the value and vulnerability of the area likely to be affected due to: (i) special natural characteristics or cultural heritage (ii) exceeded environmental quality standards or limit values (iii) intensive land-use	Impact of the effect on the value or condition of the existing area.
(g) the effects on areas or landscapes which have a recognised national, Community or international protection status	Impacts on areas with national, community or international protection.

Cumulative, secondary and synergistic effects

2.15 The assessment has considered whether significant cumulative effects are likely to arise. This has reflected on cumulative effects of different actions across the Crown Estate Scotland assets, and conclusions have been drawn on the effects of the Draft Corporate Plan in relation to each of the

environmental topics referred to in the Environmental Assessment (Scotland) Act 2005, and Directive 2001/42/EC.

Reasonable alternatives

2.16 Part 14(2) of the 2005 Act requires that:

"The report shall identify, describe and evaluate the likely significant effects on the environment of implementing (a) the plan or programme; and (b) reasonable alternatives to the plan or programme, taking into account the objectives and the geographical scope of the Plan or Programme".

2.17 As described in Chapter 1, the Scottish Crown Estate Act 2019 has set out clear statutory duties for Crown Estate Scotland. In essence, these duties include maintaining and enhancing the value of the assets in a way that supports sustainable development generally, and economic development, regeneration, and social and environmental well-being specifically.

2.18 These duties are encapsulated in Crown Estate Scotland's purpose: investing in property, natural resources and people to generate lasting value for Scotland.

2.19 Following on from this purpose, five strategic objectives reflecting the organisation's priorities for 2020-2023 have been set by Crown Estate Scotland's board in liaison with Scottish Government. These objectives are designed to align with Scottish Ministers' draft Strategic Management Plan.

2.20 Given the legal framework within which Crown Estate Scotland operates, the focus of the consideration of alternatives in the SEA relates to the actions and targets identified to deliver these strategic objectives. Alternatives have been considered for all of the actions included in the assessment, and all assessment matrices are included in **Appendix 5**. **Table 4.2** in Chapter 4 identifies where preferred options are identified in the Draft Corporate Plan.

2.22 Table 4.3 in Chapter 4 identifies where options are still to be identified through lower tier projects and plans.

2.23 Crown Estate Scotland consulted on its draft Rural Assets Strategy[10] in early 2019 and the outcomes of the consultation have informed the Draft Corporate Plan proposals relating to the rural assets. The options included in the draft Rural Assets Strategy as well as the findings from the consultation form the basis of the alternatives in relation to the rural estate in the Draft Corporate Plan. Topics in the draft Strategy included the guiding principles and strategic priorities for management of the rural assets which include estates and forestry, and wild salmon fishing.

2.24 The assessment tables clearly identify the alternatives considered for each action. These options include focusing activity on different types of development and differing levels of community involvement in decision making. The options considered are described in the relevant chapter of the Environmental Report.

Difficulties encountered

2.25 Schedule 3 of the 2005 Act states that Responsible Authorities should identify any difficulties encountered during the assessment process.

2.26 The Draft Corporate Plan is strategic and non-spatial, and the detail of a number of the actions will be developed through lower tier plans or processes. This presented a number of challenges to the assessment in terms of the extent to which potential impacts on designated sites or sensitive areas could be identified. Furthermore, the scale or nature of development which may occur as a result of the actions is also unknown. The assessment therefore had to encompass a wide range of potential effects. The SEA has made best use of available information on the actions included in the Draft Corporate Plan, however, it is acknowledged that as these are taken forward into more specific plans or projects they could evolve, and also become more specific in their scale and spatial distribution. The chapters on mitigation and enhancement (Chapter 5) and monitoring (Chapter 6) set out how these effects will be considered for these plans and projects.

[10] https://www.crownestatescotland.com/maps-and-publications/download/232

3 Environmental Context

Relationship of plans, policies, programmes, strategies and environmental protection objectives

Introduction

3.1 The Draft Corporate Plan is not being prepared in isolation and is greatly influenced by other plans, programmes and strategies (PPS), and by broader environmental objectives. The Draft Corporate Plan needs to be consistent with international and national guidance and strategic planning policies, and should contribute to the goals of a wide range of other programmes and plans. It must also conform to environmental protection legislation and the environmental objectives established at the international, national and local level.

3.2 Schedule 3 of the 2005 Act requires:

(1) "An outline of the contents and main objectives of the plan or programme, and of its relationship (if any) with other qualifying plans and programmes.

(5) The environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation".

3.3 **Chapter 1** has outlined the contents and main objectives of Crown Estate Scotland's Draft Corporate Plan.

3.4 In order to establish a clear scope for the SEA it is necessary to review and develop an understanding of the environmental objectives contained within international and national plans and programmes that are of relevance to the Draft Corporate Plan. The review is not, and cannot be exhaustive. **Appendix 1** identifies the relationship that the PPS's have with the development of the Draft Corporate Plan, and also shows how the environmental objectives have been taken into account during the preparation of the SEA Framework. The following sections of this chapter provide an overview by SEA topic area of the overarching objectives considered most relevant in the context of the preparation of the Draft Corporate Plan.

Biodiversity, fauna and flora

3.5 International commitments to biodiversity include *The Convention on Biological Diversity*[11], which was signed by 150 government leaders at the 1992 Rio Earth Summit and is dedicated to promoting sustainable development. In 2011, a revised and updated *Strategic Plan for Biodiversity 2011-2020*[12], including the Aichi Biodiversity Targets, was adopted. The twenty Aichi Targets relate to various aspects of biodiversity conservation, such as reducing direct pressures on biodiversity assets and raising awareness of key drivers behind biodiversity loss. In addition, they underpin the *Strategic Plan for Biodiversity 2011-2020*[13] which provides an international overarching framework on biodiversity. Parties agreed to translate this overarching framework into updated national biodiversity strategies and action plans.

[11] The Convention on Biological Diversity of 5 June 1992 (1760 U.N.T.S. 69)

[12] Convention on Biological Diversity, 2011. *Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets*. Available at: https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf

[13] Ibid.

3.6 The *EU Biodiversity Strategy to 2020*[14] was launched to adopt the Strategic Plan for Biodiversity 2011-2020, including the twenty Aichi Targets. The current Environment Action Programme[15], the seventh of its kind, was adopted in 2013 and covers the period up to 2020. The *EU Seventh Environmental Action Plan to 2020* is guided by the long-term vision: "*In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society*".

3.7 There are additional European Directives in place to protect Europe's biodiversity and habitats. The Habitats Directive (92/43/EEC)[16] and the Birds Directive (2009/147/EC)[17] set out legislation to create protected areas and promote the conservation of outstanding natural habitats, wildlife and landscape features. Natura 2000[18] is a primary vehicle for achieving the collective aims of these Directives. It is an ecological network of protected areas developed under the Birds Directive and Habitats Directive – covering over 18% of the EU's land area and almost 6% of its marine territory. These Directives are transposed into UK law by *The Wildlife and Countryside Act 1981*[19] (as amended), *The Conservation (Natural Habitats, &c.) Regulations 1994*[20], *The Nature Conservation (Scotland) Act 2004*[21], *The Wildlife and Natural Environment (Scotland) Act 2011* (as amended)[22], and *The Conservation of Offshore Marine Habitats and Species Regulations 2017*[23].

3.8 At the national level, the *UK Post-2010 Biodiversity Framework*[24] was a response to the publication of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets, and the launch of the EU Biodiversity Strategy to 2020. The Scottish Government has also published a strategic document, *2020 Challenge for Scotland's Biodiversity*[25], which defines the measures needed to meet the international Aichi Biodiversity Targets[26]. It also supplements the 25 year strategy (until 2030) *Scotland's Biodiversity: It's in Your Hands*[27]. The two documents together comprise the Scottish Biodiversity Strategy. In 2015, the Scottish Government published *Scotland's Biodiversity Route Map to 2020*[28] which sets out the priority work needed to meet the targets of the *2020 Challenge for Scotland's Biodiversity*. Crown Estate Scotland produced a Biodiversity Statement[29] in 2018 which outlines how it's role and targets to meet the Route Map's 'Six Big Steps for Nature'.

[14] European Commission, 2011. *EU Biodiversity Strategy to 2020*. Available at: http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm

[15] European Commission, 2013. *Living well, within the limits of our planet. The 7th EAP – The new general Union Environment Action Programme to 2020.* Available at: http://ec.europa.eu/environment/pubs/pdf/factsheets/7eap/en.pdf

[16] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

[17] Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds.

[18] European Commission, 2018. *Natura 2000* [online]. Available at: http://ec.europa.eu/environment/nature/natura2000/index_en.htm

[19] The Wildlife and Countryside Act 1981 (as amended)

[20] The Conservation (Natural Habitats, &c.) Regulations 1994 (SI 1994 No. 2716)

[21] The Nature Conservation (Scotland) Act 2004

[22] The Wildlife and Natural Environment (Scotland) Act 2011

[23] The Conservation of Offshore Marine Habitats and Species Regulations 2017 (Statutory Instrument 2017 No. 1013)

[24] Joint Nature Conservation Committee, 2012. *UK Post-2010 Biodiversity Framework*. Available at: http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

[25] Scottish Government, 2013. *2020 Challenge for Scotland's Biodiversity*. Available at: http://www.gov.scot/Resource/0042/00425276.pdf

[26] Convention on Biological Diversity, 2011. *Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets*. Available at: https://www.cbd.int/doc/strategic-plan/2011-2020/Aichi-Targets-EN.pdf

[27] Scottish Government, 2004. *Scotland's Biodiversity Strategy: It's in Your Hands – A strategy for the conservation and enhancement of biodiversity in Scotland.* Available at: http://www.gov.scot/Resource/Doc/25954/0014583.pdf

[28] Scottish Government, 2015. *Scotland's Biodiversity: A Route Map to 2020*. Available at: http://www.gov.scot/Resource/0048/00480289.pdf

[29] Crown Estate Scotland, 2018. *SBS 2020 Challenge: Crown Estate Scotland Delivery Statement*. Available at: http://www.crownestatescotland.com/maps-and-publications

Population and human health

3.9 Public health is the subject of a variety of policies and statutes, either directly or indirectly and many of these cut across many other SEA topics, including air and water quality, management of flood risk and climate change. Physical activity and access to open space is also a key area which supports health.

3.10 Many of the policies and statutes focus on preventing or limiting exposure to air pollutants. At the European level are various directives that address air quality issues. The *Ambient Air Quality Directive* (2008/50/EC)[30] sets legally binding limits for concentrations of major air pollutants. The Ambient Air Quality Directive is transposed into Scots law through the *Air Quality Standards (Scotland) Regulations 2010*[31]. Other relevant legislation includes the *Environment Act 1995*[32]. Under Section 83(1) of the *Environment Act 1995*, local authorities have a duty to declare Air Quality Management Areas (AQMAs) at locations in which air quality objectives are not being met or are unlikely to be met.

3.11 Other policies and statutes aim to minimise the potential impacts of environmental nuisances such as noise pollution, light pollution and disturbance from vibration. Furthermore, the *Public Health etc. (Scotland) Act 2008*[33] also makes provision for law on statutory nuisances such as artificial light nuisances.

3.12 There is also legislation in place to prevent and control any adverse health effects arising from the contamination of water resources. At the European level, these are entrenched in both the *Bathing Water Quality Directive* (2006/7/EC)[34] and *the Drinking Water Directive* (98/83/EC)[35] at the European level. The Bathing Water Quality Directive has been transposed through the *Bathing Waters (Scotland) Regulations 2008 (as amended)*[36] and the *Bathing Waters (Sampling & Analysis) (Scotland) Directions 2008*[37]. The *Public Water Supplies (Scotland) Regulations 2014* [38] regulations transpose the Drinking Water Directive.

3.13 At a national level physical activity is promoted through the National Planning Framework 3 (2014)[39] which supports physical activity, active travel and access to greenspace with associated health benefits. These aims are also supported through *Let's make Scotland more active: A Strategy for Physical Activity*[40] and the *Cycling Action Plan for Scotland*[41].

Soil

3.14 At the European level, the importance of protecting soil quality has been recognised through the European Commission's *Thematic Strategy for Soil Protection*[42]. The Strategy aims to establish common principles for the protection and sustainable use of soils by promoting responsible management practices and the restoration of degraded soils. Many of these aims are reflected in

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[30] European Commission, 2008. *Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe.* Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0050

[31] Air Quality Standards (Scotland) Regulations 2010 (Scottish Statutory Instrument 2010/204)

[32] Environment Act 1995 (c 25)

[33] Public Health etc. (Scotland) Act 2008 (Scottish Statutory Instrument 2008/asp 5)

[34] European Commission, 2006. *Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0007

[35] European Commission, 1998. *Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption*. Available at: http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A31998L0083

[36] The Bathing Waters (Scotland) Regulations 2008 (Scottish Statutory Instrument 2008/170)

[37] Scottish Government, 2008. *The Bathing Waters (Sampling and Analysis) (Scotland) Directions 2008.* Available at: http://www.gov.scot/Resource/Doc/1057/0072275.pdf

[38] The Public Water Supplies (Scotland) Regulations 2014 (Scottish Statutory Instrument 2014 No. 364)

[39] Scottish Government (2014) National Planning Framework 3. Available at: https://beta.gov.scot/publications/national-planning-framework-3/

[40] Physical Activity Task Force (2003) *Let's make Scotland more active A Strategy for Physical Activity.* Available at: http://www.gov.scot/Publications/2003/02/16324/17895

[41] Scottish Government, (2010) *Cycling Action Plan for Scotland More people cycling more often*. Available at: http://www.gov.scot/resource/doc/316212/0100657.pdf

[42] European Commission, 2006. *Thematic Strategy for Soil Protection*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52006DC0231

The Scottish Soil Framework[43] which was launched in 2009. The Framework sets out a vision for the enhancement and protection of soils within the context of the economic, social and environmental needs of Scotland.

3.15 At the national level, there is specific legislation in place to promote the remediation of contaminated land. These include the *Environmental Protection Act 1990*[44] and the *Contaminated Land (Scotland) Regulations 2000*[45].

3.16 Peatland soils have been given special attention through *Scotland's National Peatland Plan*[46] which sets out a number of targets regarding the improvement and restoration of Scotland's peatlands. The Scottish Government's *Draft Peatland and Energy Policy Statement*[47] seeks to align peatland and energy policy in order to maximise greenhouse gas emission abatement in a way that delivers multiple benefits.

Water

3.17 The importance of protecting water quality has been recognised through the EU's *Water Framework Directive* (2000/60/EC)[48] which sets out a comprehensive approach to protect Europe's inland surface waters, transitional waters, coastal waters and ground waters. The Water Framework Directive includes a requirement for an assessment of both chemical and ecological states, alongside additional requirements to consider the status of biodiversity as an indicator in determining overall water quality. The European Commission's '*A Blueprint to Safeguard Europe's Resources*'[49] sets out measures to better implement current water legislation, integration of water policy into other policies, and safeguarding water quantity and efficiency in Europe.

3.18 Scotland fulfils the obligations as set out in the Water Framework through the *Water Environment and Water Services (Scotland) Act 2003*[50] which guides the establishment of River Basin Management Plans (RBMPs), and the *Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)*[51] which provides a regulatory framework for controlling activities, known as 'CAR', that could have negative effects on Scotland's water environment. Examples of CAR activities include water abstraction for irrigation, discharges of wastewater, impoundments, hydropower and surface water drainage. Other relevant legislation includes the *Pollution Prevention and Control (Scotland) Regulations 2012*[52] which aims to specifically control pollution relating to industry discharges.

3.19 Other policies focus on avoiding or limiting the impacts of flood risk. At the European level the *Floods Directive* (2007/60/EC)[53] establishes a framework for the reduction of the adverse consequences of flood for human health, the environment, cultural heritage and economic activity. The Floods Directive has been made into national law through the *Flood Risk Management (Scotland) Act 2009*[54] which mandates the creation of Flood Risk Management Strategies and Local Flood Risk Management Plans.

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[43] Scottish Government, 2009. *The Scottish Soil Framework*. Available at: http://www.gov.scot/Publications/2009/05/20145602/0

[44] Environmental Protection Act 1990

[45] The Contaminated Land (Scotland) Regulations 2000 (Scottish Statutory Instrument 2000/178)

[46] Scottish Natural Heritage, 2015. *Scotland's National Peatland Plan: Working for our future*. Available at: https://www.nature.scot/sites/default/files/2017-07/A1697542%20-%20150730%20-%20peatland_plan.pdf

[47] Scottish Government, 2016. *Draft Peatland and Energy Policy Statement*. Available at: http://www.gov.scot/Topics/Business-Industry/Energy/Energy-sources/19185/Draft-Peatland-Policy

[48] European Commission, 2000. *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy*. Available at: http://eur-lex.europa.eu/resource.html?uri=cellar:5c835afb-2ec6-4577-bdf8-756d3d694eeb.0004.02/DOC_1&format=PDF

[49] European Commission, 2012. *A Blueprint to Safeguard Europe's Water Resources.* Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52012DC0673

[50] Water Environment and Water Services (Scotland) Act 2003 (Scottish Statutory Instrument 2003/asp 3)

[51] Water Environment (Controlled Activities) (Scotland) Regulations 2012 (Scottish Statutory Instrument 2011/209)

[52] The Pollution Prevention and Control (Scotland) Regulations 2012 (Scottish Statutory Instrument 2012/360)

[53] European Commission, 2007. *Directive 2007/60/EC of the European Parliament and of the Council of 2007 on the assessment and management of flood risks*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32007L0060

[54] Flood Risk Management (Scotland) Act 2009 (Scottish Statutory Instrument 2009/asp 6)

3.20 Crown Estate Scotland's assets include coastal and marine assets. Marine waters are considered through the EU's *Marine Strategy Framework Directive* (2008/56/EC)[55], which sets out a comprehensive approach to protect and preserve Europe's marine environment, prevent its deterioration or, where practicable, restore marine ecosystems in areas where they have been adversely affected, as well as prevent and reduce inputs in the marine environment, with a view to phasing out pollution, so as to ensure that there are no significant impacts on or risks to marine biodiversity, marine ecosystems, human health or legitimate uses of the sea. The Marine Strategy Framework includes the requirement for the development of marine strategies for each marine region or sub region. In addition to this Framework Directive, the EU *Bathing Water Directive* (2006/7/EC)[56] sets out a comprehensive approach to the monitoring and classification of bathing water quality, the management of bathing water quality, and the provision of information to the public on bathing water quality.

3.21 The *Marine (Scotland) Act 2010*[57] provides a framework to help balance competing demands on Scotland's seas. It includes a duty to protect and enhance the marine environment and includes measures to help boost economic investment and growth in areas such as marine renewables. Following this, *Scotland's National Marine Plan 2015*[58] was produced, which provides a framework for managing all developments, activities and interests in or affecting Scotland's marine area (territorial and offshore waters). The National Marine Plan sets out high-level objectives, general policies and sectoral policies. These includes general policies to prevent adverse impacts on coastal processes and flooding, to reduce marine litter, and to maintain marine water quality, as well as specific policies regarding industrial sectors, including those within Crown Estate Scotland assets such as sea fisheries, aquaculture and offshore renewable energy.

3.22 Regional Marine Plans are in preparation for the 11 Scottish Marine Regions that were defined following the *Marine (Scotland) Act 2010*, and which will allow more local ownership and decision making about specific issues within their areas[59]. To date, regional marine plans are in preparation for the Clyde and Shetland Isles Marine Regions.

3.23 There is also legislation relating to managing several types of fisheries in Scotland, including the estimated 750 sites that Crown Estate Scotland lease to fish farm operators. The *Aquaculture and Fisheries (Scotland) Act 2013*[60] sets out regulations to ensure that farmed and wild fisheries – and their interactions with each other – continue to be managed effectively. The *Salmon and Freshwater Fisheries (Consolidation) Act 2003*[61] consolidates legislation relating to salmon and freshwater fisheries in Scotland. The Act sets out regulation with regard to the methods of fishing for salmon and freshwater fish.

Air

3.24 European legislation addresses the issues associated with air pollution. *The Ambient Air Quality Directive* (2008/50/EC)[62] sets targets for key pollutants such as SO_2, NO_x, particulates, lead, benzene and ground-level ozone. Moreover, the *National Emission Ceilings Directive* (2016/2284/EU)[63] sets targets for reducing emissions of five important air pollutants including

[55] European Commission, 2008. *Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32008L0056

[56] European Commission, 2006. *Directive 2006/7/ES of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0007

[57] Scottish Government, 2010. *Marine (Scotland) Act 2010*. Available at: http://www.gov.scot/Topics/marine/seamanagement/marineact

[58] Scottish Government, 2015. *Scotland's National Marine Plan*. Available at: http://www.gov.scot/Publications/2015/03/6517

[59] Scottish Government, 2017. *Regional Planning*. Available at: http://www.gov.scot/Topics/marine/seamanagement/regional

[60] Aquaculture and Fisheries Act 2013 (Scottish Statutory Instrument 2013 asp 7)

[61] Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 (Scottish Statutory Instrument 2003 asp 15)

[62] European Commission, 2008. *Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe*. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0001:0044:en:PDF

[63] European Commission, 2016. *Directive 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC.* Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2016.344.01.0001.01.ENG

nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), sulphur dioxide (SO_2), ammonia (NH_3) and fine particulate matter ($PM_{2.5}$) as well as carbon monoxide (CO).

3.25 Directive 2016/2284/EU was subsequently made into law as *The National Emissions Ceilings Regulations 2018*[64]. Air quality is a devolved matter in the UK – administrations in Scotland (SEPA), Wales (NRW) and Northern Ireland (Northern Ireland Air) are required to produce their own air quality policy and legislation[65]. As a result, the Ambient Air Quality Directive has been transposed into Scots law through the *Air Quality Standards (Scotland) Regulations 2010*[66].

3.26 Other relevant legislation includes Part IV of the *Environment Act 1995*[67] which sets out provisions for protecting air quality throughout the UK. Under Section 83(1) of the *Environment Act 1995*, local authorities are required to declare Air Quality Management Areas (AQMAs) at locations in which air quality objectives are not being met or are unlikely to be met. Local authorities have a duty to develop and implement Air Quality Action Plans in these locations in order to improve air quality to an acceptable level[68].

3.27 The Scottish Government's *Cleaner Air for Scotland – The Road to a Healthier Future*[69] proposes a national strategy for improving Scotland's air quality with a vision of making it the "best in Europe"). Among its specific goals are full compliance with EU air quality legislation and significant progress towards rescinding all existing Air Quality management Zones in Scotland by 2020.

Climatic factors

3.28 The impacts of climate change have been addressed through numerous international agreements, most notably the *Kyoto Protocol*[70] and the *UN Paris Agreement*[71].

3.29 The Kyoto Protocol is a legally binding treaty to reduce greenhouse gas emissions. It was adopted in 1997 and came into force in 2005. 192 countries have adopted the Kyoto Protocol. The Kyoto Protocol requires participating countries to cut their emissions by an average of 5% below 1990 levels over the five-year period between 2008 and 2012. The EU, some other European countries and Australia have agreed to make further emission cuts, with EU countries having agreed to meet a joint 20% reduction target for 2020 compared to 1990 levels[72].

3.30 The Paris Agreement aims to keep global temperature rise below 2°C above pre-industrial levels. It came into force in 2016 after being adopted by 195 countries. The Paris Agreement covers a wide range of related issues such as mitigation measures and adaptation[73].

3.31 These international climate change targets have been translated into specific policies and statutes at the European level. For instance, the EU Emissions Trading System (EU ETS) is a cornerstone of the EU's strategy to tackle climate change and operates in 31 countries (all EU countries plus Iceland, Liechtenstein and Norway).

3.32 At the European level there is also the European Commission's *2030 Climate and Energy Framework*[74] which sets key targets related to tackling climate change: 40% cuts in greenhouse gas emissions (from 1990 levels), 27% increases in the share of renewable energy and a 27%

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[64] The National Emission Ceilings Regulations 2018 (SI 2018/129)

[65] CIEEM, 2015. *UK Environmental Legislation and UK Implementation*. Available at: https://www.cieem.net/data/files/Resource_Library/Policy/Policy_work/CIEEM_EU_Directive_Summaries.pdf

[66] The Air Quality Standards (Scotland) Regulations 2010 (Scottish Statutory Instrument 2010/204)

[67] Environment Act 1995

[68] Scottish Government, 2005. *Part IV of the Environment Act 1995 – Local Air Quality Management Revised Policy Guidance*. Available at: http://www.gov.scot/Publications/2003/02/16265/17537

[69] Scottish Government, 2015. *Cleaner Air for Scotland – the Road to a Healthier Future*. Available at: http://www.gov.scot/Resource/0048/00488493.pdf

[70] United Nations, 1998. *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. Available at: https://unfccc.int/sites/default/files/kpeng.pdf

[71] United Nations, 2015. *Paris Agreement.* Available at: https://unfccc.int/sites/default/files/english_paris_agreement.pdf

[72] European Commission, 2018. *Climate Action – Kyoto 1st commitment period (2008-12).* Available at: https://ec.europa.eu/clima/policies/strategies/progress/kyoto_1_en

[73] European Commission, 2016. *Climate Action – Paris Agreement*. Available at: https://ec.europa.eu/clima/policies/international/negotiations/paris_en

[74] European Commission, 2014. *2030 Climate & Energy Framework*. Available at: https://ec.europa.eu/clima/policies/strategies/2030_en

improvement in energy efficiency for 2030. The 2030 Climate and Energy Framework is in line with the longer term perspective set out in the European Commission's *Roadmap for moving to a competitive low carbon economy in 2050*[75], the *Energy Roadmap 2050*[76] and the European Commission's *Transport White Paper*[77]. Other relevant EC statutes include the *Renewable Energy Directive* (2009/28/EC)[78] and the *Energy Efficiency Directive* (2012/27/EU)[79]. The Renewable Energy Directive sets targets for renewable energy use within the EU, and requires that 20% of the energy consumed within the EU is renewable. The Energy Efficiency Directive establishes a set of binding targets to help the EU to reach its 20% energy efficiency target by 2020.

3.33 Scotland has set ambitious climate change targets under the *Climate Change (Scotland) Act 2009*[80], which was developed to deliver the statutory emissions reduction targets set out in the Kyoto Protocol and European legislation. The Climate Change (Scotland) Act sets statutory targets for the reduction of greenhouse gas emissions by setting an interim 42% reduction target by 2020 and an 80% reduction target from baseline levels (1990) for 2050. The Act makes further provisions for energy efficiency and the reduction and recycling of waste. Part 5 of the Act also includes secondary legislation in relation to the energy performance of buildings and the functions of forestry commissioners. In addition, the Scottish Government recently published the *Climate Change Plan*[81] and the *Scottish Energy Strategy*[82]. The documents sit alongside one another, as they both set out policies to meet the Scottish Government's emission reduction targets over the period 2017-2032.

3.34 Under the *Climate Change Act 2008*[83], the UK Government is required to publish a UK-wide Climate Change Risk Assessment (CCRA)[84] every 5 years which defines the impacts from climate change. CCRA reports to date include *the 2012 UK Climate Change Risk Assessment (CCRA)*[85] and the *2017 UK Climate Change Risk Assessment (CCRA2)*[86]. Under section 53 of the *Climate Change (Scotland) Act 2009*, Scotland published its first statutory *Scottish Climate Change Adaptation Programme*[87] in 2014, which is also a means to address the climate change impacts identified for Scotland in the UK Climate Change Risk Assessment.

3.35 The *Climate Change (Scotland) Act 2009* also requires that, as soon as reasonably practicable after setting annual targets, Ministers publish a report setting out policies and proposals for meeting those targets. The Climate Change Plan is the Scottish Government's report on proposals and policies for meeting its climate change targets. It sets out how Scotland can deliver its target of 66% emissions reductions, relative to the baseline, for the period 2018–2032. Scotland declared a climate emergency in May 2019, and it was followed by amendments to the Climate Change Bill to set a 2045 target for net zero emissions. Future action will include reviews of Rural Policy, the National Island Plan, the Land Use Strategy and the Scottish Government's

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[75] European Commission, 2011. *The roadmap for moving to a competitive low-carbon economy in 2050*. Available at: https://ec.europa.eu/clima/sites/clima/files/2050_roadmap_en.pdf

[76] European Commission, 2012. *Energy Roadmap 2050*. Available at: https://ec.europa.eu/energy/sites/ener/files/documents/2012_energy_roadmap_2050_en_0.pdf

[77] European Commission, 2011. *WHITE PAPER Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*. Available at: http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A52011DC0144

[78] European Commission, 2009. *Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC*. Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009L0028

[79] European Commission, 2012. *Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.* Available at: http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0027

[80] Climate Change (Scotland) Act 2009 (Scottish Statutory Instrument 2009/asp 12)

[81] The Scottish Government, 2018. *Climate Change Plan – the Third Report on Proposals and Policies 2018-2032*. Available at: http://www.gov.scot/Resource/0053/00532096.pdf

[82] The Scottish Government, 2017. *Scottish Energy Strategy: The future of energy in Scotland*. Available at: http://www.gov.scot/Resource/0052/00529523.pdf

[83] Climate Change Act 2008

[84] Committee on Climate Change, 2017. *UK Climate Change Risk Assessment 2017 Evidence Report – Introduction to the CCRA*. Available at: https://www.theccc.org.uk/tackling-climate-change/preparing-for-climate-change/uk-climate-change-risk-assessment-2017/introduction-to-the-ccra/

[85] UK Government, 2012. *UK Climate Change Risk Assessment: Government Report*. Available at: https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-government-report

[86] UK Government, 2017. *UK Climate Change Risk Assessment 2017*. Available at: https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2017

[87] Scottish Government, 2014. *Climate Ready Scotland: Scottish Climate Change Adaptation Programme*. Available at: http://www.gov.scot/Publications/2014/05/4669

Infrastructure Mission, which will all place a strong emphasis on addressing climate change. Carbon capture, use and storage will also play an important part.

3.36 In 2018, the UK Government published '*A Green Future: Our 25 Year Plan to Improve the Environment*'[88] which sets out a comprehensive and long-term approach to improve the UK's natural environment, including guidance to tackle the effects of climate change.

Cultural heritage and the historic environment

3.37 The importance of protecting cultural heritage assets is acknowledged through the *European Convention on the Protection of the Archaeological Heritage*[89]. The primary aim of the Convention is to protect archaeological heritage, including any physical evidence of the human past that can be investigated archaeologically both on land and underwater. The Convention also makes a provision for the creation of archaeological reserves and the conservation of excavated sites.

3.38 In Scotland, cultural heritage objectives are set out under the *Historic Environment Scotland Act 2014*[90]. This builds upon existing legislation pertaining to ancient monuments and listed buildings as well as providing for the creation of inventories of gardens and designed landscapes, as well as of battlefields. Specifically, the Act amends the *Ancient Monuments and Archaeological Areas Act 1979*[91], the *Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997*[92] the *Environmental Assessment (Scotland) Act 2005*[93] and the *Marine (Scotland) Act 2010*[94].

3.39 *Our Place in Time – The Historic Environment Strategy for Scotland*[95], published in 2014, sets out a 10 year vision for protecting the cultural, social, environmental and economic value of Scotland's heritage assets. The vision is underpinned by three fundamental aims of understanding, recording and protecting Scotland's historic environment.

3.40 The 2014 Strategy and the *Historic Environment Policy for Scotland*[96] set out an overarching framework for historic environment policy in Scotland. Other relevant policies include the *National Planning Framework*[97], *Scottish Planning Policy*[98], *Historic Environment Circular 1*[99], *The Town and Country Planning (Historic Environment Scotland) Amendment Regulations 2015*[100] and *Historic Environment Scotland's Managing Change in the Historic Environment*[101] guidance note series. These documents provide guidance for local planning authorities pertaining to applications for conservation area and listed building consents, as well as the consideration of more general planning applications.

3.41 The *Marine (Scotland) Act 2010*[102] provides for the designation of historic marine protected areas (historic MPAs) to protect marine historic assets of national importance in the seas around

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[88] HM Government, 2018. *A Green Future: Our 25 Year Plan to Improve the Environment*. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

[89] Council of Europe, 1992. *European Convention on the Protection of the Archaeological Heritage (Revised).* Available at: https://rm.coe.int/168007bd25

[90] Historic Environment Scotland Act 2014 (Scottish Statutory Instrument 2014/asp 19)

[91] Ancient Monuments and Archaeological Areas Act 1979 (Chapter 46)

[92] Planning (Listed Buildings and Conservation) (Scotland) Act 1997 (Chapter 9)

[93] Environmental Assessment (Scotland) Act 2005 (Scottish Statutory Instrument 2005 asp 15)

[94] Marine (Scotland) Act 2010 (Scottish Statutory Instrument 2010 asp 5)

[95] Historic Scotland, 2014. *Our Place in Time – the Historic Environment Strategy for Scotland*. Available at: http://www.gov.scot/Resource/0044/00445046.pdf

[96] Historic Environment Scotland, 2019. *Historic Environment Policy Scotland April 2019* [online]. Available at: https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/historic-environment-policy-for-scotland-heps//

[97] Scottish Government, 2014. *National Planning Framework 3*. Available at: http://www.gov.scot/Topics/Built-Environment/planning/National-Planning-Framework

[98] Scottish Government, 2014. *Scottish Planning Policy*. Available at: http://www.gov.scot/Topics/Built-Environment/planning/Policy

[99] Historic Environment Scotland, 2016. *Historic Environment Circular 1*. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=ec209755-9bf8-4840-a1d8-a61800a9230d

[100] The Town and Country Planning (Historic Environment Scotland) Amendment Regulations (Scottish Statutory Instrument 2015/237)

[101] Historic Environment Scotland, undated. *Managing Change in the Historic Environment.* Available at: https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes/

[102] Marine (Scotland) Act 2010 (Scottish Statutory Instrument 2010 asp 5)

Scotland. Moreover, the Act outlines that, when applying for a marine licence, consideration must be made regarding the protection of the environment, including any site of historical or archaeological interest. General Planning Principle 6 in *Scotland's National Marine Plan*[103] states that development and use of the marine environment should protect, and where appropriate, enhance heritage assets in a manner proportionate to their significance.

Landscape and geodiversity

3.42 Landscape protection is acknowledged through a variety of policies and legislation. *The European Landscape Convention*[104], also known as the 'Florence Convention', strives to promote landscape protection, management and planning and to organise European co-operation on landscape issues. The Florence Convention introduces a national landscape policy that is not only restricted to internationally protected landscapes, but also takes account of less remarkable or even degraded landscapes. The Convention encompasses all kinds of environments including rural, urban and peri-urban landscapes across terrestrial, marine and coastal environments.

3.43 The National Scenic Areas (NSAs) Programme[105] identifies Scottish landscapes of outstanding scenic quality. In this context, 'special qualities' are defined as the characteristics that comprise an area's outstanding scenery – both individually and combined. Section 263(A) of the *Town and Country Planning (Scotland) Act 1997*[106] requires planning authorities to take notice of the scenic characteristics of an NSA when exercising any powers under that Act to any land within that NSA[107].

3.44 Further policies have been implemented at the national level to protect Scotland's landscapes. *Scottish Planning Policy*[108] aims to protect and enhance Scotland's natural heritage and landscapes. *The National Planning Framework 3*[109] acknowledges wild land areas as a nationally important asset. SNH's *Landscape Policy Framework*[110] strives to protect the natural and aesthetic qualities of Scotland's landscapes. In this context, the Landscape Policy Framework identifies a number of key landscape types including distinctive settlements, crofting landscapes, forests and woodland, upland hills, moorland landscapes and coastal landscapes.

3.45 Local landscape designations occur across Scotland and help to protect landscape from inappropriate development. Local development plans show their location and associated policy.

3.46 There is no national seascape assessment for Scotland, however an individual seascape assessment for has been produced for the Firth of Clyde. This takes into account the experience of both the coast and the sea, as well as assesses the key characteristics of each stretch of sea/coast in terms of their sensitivity to built structures, both off and on shore, and land management of the coast[111]. Coastal character assessments have been carried out for selected other areas of the coast including Shetland, Orkney and north Caithness.

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[103] The Scottish Government, 2015. *Scotland's National Marine Plan* [pdf]. Available at: http://www.gov.scot/Resource/0047/00475466.pdf

[104] Council of Europe, 2000. *The European Landscape Convention*. Available at: https://rm.coe.int/1680080621

[105] The Scottish Government, 2017. *Countryside and Landscape in Scotland – National Scenic Areas*. Available at: http://www.gov.scot/Topics/Environment/Countryside/Heritage/Areas

[106] The Town and Country Planning (Scotland) Act 1997 (Scottish Statutory Instrument c.8)

[107] Scottish Government, 2017. *Countryside and Landscape in Scotland – National Scenic Areas*. Available at: http://www.gov.scot/Topics/Environment/Countryside/Heritage/Areas

[108] Scottish Government, 2014. *Scottish Planning Policy*. Available at: https://beta.gov.scot/publications/scottish-planning-policy/documents/00453827.pdf

[109] Scottish Government, 2014. *National Planning Framework 3*. Available at: http://www.gov.scot/Topics/Built-Environment/planning/National-Planning-Framework

[110] Scottish Natural Heritage, 2005. *SNH Landscape Policy Framework*. Available at: https://www.nature.scot/professional-advice/landscape-change/framework-landscape-policy/snh-landscape-policy-framework

[111] Scottish Natural Heritage on behalf of the Firth of Clyde Forum, 2013. *Seascape/Landscape Assessment of the Firth of Clyde*. Available at: http://www.clydemarineplan.scot/marine-planning/marine-planning-projects/#seascape

Material assets

3.47 The SEA topic 'material assets' encompasses a wide variety of topics, and, as such, can be interpreted in a number of different ways[112]. In the context of this report, this SEA topic refers to the potential impacts of the management of Crown Estate Scotland assets on the built and natural environment.

3.48 Key built assets associated with Crown Estate Scotland include:

- Infrastructure relating to energy generation and distribution, such as sub-sea energy cable and offshore wind farms; and
- Flood protection, relating to foreshore and coastal defence;
- Transport network, particularly ports and harbours.

3.49 Key natural assets associated with Crown Estate Scotland include:

- Minerals, including sand, gravel, rock, and slate, as well as peat;
- Natural flood management processes especially in terms of the upland estates;
- Forestry and woodlands;
- Agricultural land.

Marine infrastructure for energy generation and distribution

3.50 Crown Estate Scotland manages leasing of virtually all seabed out to the 12 nautical mile territorial limit and also holds the rights to offshore renewable energy and carbon and gas storage out to 200 nautical miles from shore under the *2004 Energy Act*. However, the rights to explore and utilise the natural resources of the UK continental shelf for oil and gas exploration are granted under the *Continental Shelf Act 1964*[113] and are not part of the Scottish Crown Estate assets.

3.51 For marine-based electricity generating stations in excess of 1 MW out to 12 nautical miles and in excess of 50 MW from 12-200 nautical miles, marine infrastructure developers must obtain Section 36 consent in accordance with the *Electricity Act 1989*[114]. In both cases, the Scottish Ministers are the licencing authority.

3.52 In 2017, the Scottish Government published the new *Energy Strategy*[115] which sets out a long-term vision for the energy system in Scotland. The Energy Strategy builds on a well-established framework for sustainable energy policy in Scotland, including the *Scottish Government's 2020 Routemap for Renewable Energy*[116], the *Electricity Generation Policy Statement*[117], the *Heat Policy Statement: Towards Decarbonising Heat – Maximising the Opportunities for Scotland*[118] and the *Community Energy Policy Statement*[119].

3.53 In November 2017, Crown Estate Scotland announced their intention to run a leasing round for commercial scale offshore wind energy projects in Scottish Waters. Marine Scotland is currently preparing a Draft Sectoral Plan for Offshore Wind Energy and is expected to publish this for consultation in autumn 2019. Crown Estate Scotland will lease in line with the areas identified for offshore wind development through the sectoral planning process.

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[112] Scottish Environment Protection Agency, 2016. *Guidance on consideration of material assets in Strategic Environmental Assessment*. Available at: https://www.sepa.org.uk/media/219432/lups-sea-gu4-consideration-of-material-assets-in-sea.pdf

[113] Continental Shelf Act 1964 (c.29)

[114] Electricity Act 1989 (c. 29)

[115] The Scottish Government, 2017. *Scottish Energy Strategy: The future of energy in Scotland.* Available at: http://www.gov.scot/Resource/0052/00529523.pdf

[116] The Scottish Government, 2011. *2020 Routemap for Renewable Energy in Scotland*. Available at: http://www.gov.scot/Publications/2011/08/04110353/0

[117] The Scottish Government, 2014. *The Electricity Generation Policy Statement – 2013*. Available at: http://www.gov.scot/Topics/Business-Industry/Energy/EGPSMain

[118] The Scottish Government, 2015. *The Heat Policy Statement: Towards Decarbonising Heat: Maximising the Opportunities for Scotland*. Available at: http://www.gov.scot/Publications/2015/06/6679

[119] The Scottish Government, 2015. *Scottish Government Community Energy Policy Statement – September 2015*. Available at: http://www.gov.scot/Topics/Business-Industry/Energy/CEPS2015

Water supply

3.54 At the national level, several statutes are in place to safeguard the quality of water supply. These include the *Water Industry (Scotland) Act 2002*[120] as amended by the *Water Services etc. (Scotland) Act 2005*[121], the *Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015*[122], the *Public Water Supplies (Scotland) Regulations 2014*[123] , the *Water Quality (Scotland) Regulations 2010*[124], the *Private Water Supplies (Scotland) Regulations 2006*[125], the *Public Water Supplies (Scotland) Amendment Regulations 2017*[126].

3.55 In addition, the *Water Resources (Scotland) Act 2013*[127] requires Scottish Ministers to take measures for the purpose of ensuring the development of Scotland's water resources.

Transport

3.56 *Scotland's National Transport Strategy*[128] sets out the long-term framework for sustainable transport in Scotland, including efficient and sustainable freight.

3.57 *Scotland's National Marine Plan*[129] acknowledges that shipping, ports and harbours provide infrastructure for other sectors of both regional and national importance, including vital support to industries such as fishing, oil and gas, aggregates, aquaculture and the developing marine renewable energy industry.

3.58 In addition, Transport Scotland has produced a series of freight best practice guides and case studies for reducing emissions and increasing safety[130].

Minerals

3.59 At the European level, the *EU Management of Waste from Extractive Industries* (2006/21/EC)[131] sets out legislation to manage waste from extraction and the processing of mineral resources. This involves materials that must be removed to gain access to the mineral resource, such as topsoil, overburden and waste rock, as well as tailings remaining after the minerals have been extracted. The Directive has been transposed into Scots law through the *Management of Extractive Waste (Scotland) 2010 Regulations*[132].

3.60 In 2003, the Scottish Government published the *Planning Advice Note (PAN) 64 – Reclamation of Surface Mineral Workings*[133], which provides guidance on reclamation procedures for minerals. Reclamation of surface mineral workings has the potential to enhance derelict and degraded areas, remove ground instability caused by old mineral workings, create habitats, improve countryside access and provide community facilities and geological sites of interest.

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[120] Water Industry (Scotland) Act 2002 (Scottish Statutory Instrument 2002 asp 3)
[121] Water Services etc. (Scotland) Act 2005 (Scottish Statutory Instrument 2005 asp 3)
[122] The Private and Public Water Supplies (Miscellaneous Amendments) (Scotland) Regulations 2015 (Scottish Statutory Instrument 2015 No. 346)
[123] The Public Water Supplies (Scotland) Regulations 2014 (Scottish Statutory Instrument 2014 No. 364)
[124] The Water Quality (Scotland) Regulations 2010 (Scottish Statutory Instrument 2010 No. 95)
[125] The Private Water Supplies (Scotland) Regulations 2006 (Scottish Statutory Instrument 2006 No. 209)
[126] The Public Water Supplies (Scotland) Amendment Regulations 2017 (Scottish Statutory Instrument 2017 No. 281)
[127] Water Resources (Scotland) Act 2013 (Water Resources (Scotland) Act 2013 (Scottish Statutory Instrument 2013 asp 5)
[128] Transport Scotland, 2016. *National Transport Strategy*. Available at: https://www.transport.gov.scot/publication/national-transport-strategy-nts/
[129] The Scottish Government, 2015. *Scotland's National Marine Plan.* Available at: http://www.gov.scot/Resource/0047/00475466.pdf
[130] Transport Scotland, undated. *Freight transport*. Available at: https://www.transport.gov.scot/our-approach/industry-guidance/freight-transport/#42445
[131] The European Commission, 2006. *Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC*. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32006L0021
[132] Management of Extractive Waste (Scotland) 2010 Regulations (Scottish Statutory Instrument 2010 No. 60)
[133] The Scottish Government, 2003. *PAN 64: Reclamation of Surface Mineral Workings*. Available at: http://www.gov.scot/Publications/2003/01/16122/16257

Forestry

3.61 The *Forestry and Land Management (Scotland) Act 2018* [134] provides the legislative framework for the forestry sector's contribution to the economic, environmental and social ambitions set by Scottish Ministers. In this context, the key policy objectives of the Act are[135]:

- Improve accountability, transparency and policy alignment by transferring powers and duties of the Forestry Commissioners to make Scottish Ministers fully accountable for Forestry in Scotland.
- Introduce a new legislative framework to support and regulate forestry, replacing the outdated Forestry Act 1967 in Scotland.
- Make more effective use of Scotland's public land, including greater flexibility in the use of the National Forest Estate.

3.62 In addition, the *Scottish Forestry Strategy*[136] provides a vision for a diverse and sustainable forestry sector in Scotland. The Strategy sets out seven key themes to help achieve this vision: climate change, timber, business development, community development, access and health, environmental quality and biodiversity.

Agriculture

3.63 The following legislation provides the basis for a legal framework for the tenant farming and agricultural holdings in Scotland[137]: the *Agricultural Holdings (Amendment) (Scotland) Act 2012*[138], the *Public Services Reform (Agricultural Holdings) (Scotland) Order 2011*[139] along with the *Agricultural Holdings (Scotland) Act 2003*[140] and the *Agricultural Holdings (Scotland) Act 1991*[141]. In addition, the *Land Reform (Scotland) Act 2016*[142] sets out legislation for property and regulatory law, and amends the current agricultural holdings legislation.

3.64 The *Deer (Scotland) Act 1996*[143] provides the basic framework for the conservation, control and sustainable management of wild red deer in Scotland, also in relation to the relationship between agriculture and the management of red deer for sport.

3.65 '*Getting the Best From Our Land: A Land Use Strategy for Scotland 2016-2021*'[144] sets a long-term framework for sustainable land use for a range of sectors, including agriculture and forestry. Publications such as '*Farming for a Better Climate*'[145] and '*The Future of Scottish Agriculture: A Discussion Document*'[146] set out actions to help farmers tackle climate change and promote good practice.

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[134] The Scottish Parliament, 2018. *Forestry and Land Management (Scotland) Act 2018*. Available at: http://www.legislation.gov.uk/asp/2018/8/contents/enacted

[135] Ibid.

[136] Forestry Commission, 2006. *The Scottish Forestry Strategy*. Available at: https://scotland.forestry.gov.uk/supporting/strategy-policy-guidance/forestry-strategy

[137] The Scottish Government, 2017. *Rural Land in Scotland – Agricultural Holdings Legislation*. Available at: http://www.gov.scot/Topics/farmingrural/Agriculture/agricultural-holdings/legislation

[138] Agricultural Holdings (Amendment) (Scotland) Act 2012 (Scottish Statutory Instrument 2012 asp 6)

[139] Public Services Reform (Agricultural Holdings) (Scotland) Order 2011 (Scottish Statutory Instrument 2011 No. 232)

[140] Agricultural Holdings (Scotland) Act 2003 (Scottish Statutory Instrument 2003 asp 11)

[141] Agricultural Holdings (Scotland) Act 1991 (Scottish Statutory Instrument Chapter 55)

[142] The Land Reform (Scotland) Act 2016 (Scottish Statutory Instrument 2016 asp 18)

[143] The Deer (Scotland) Act 1996 (Scottish Statutory Instrument Chapter 58)

[144] The Scottish Government, 2011. *Getting the Best From Our Land: A Land Use Strategy for Scotland 2016-2021*. Available at: http://www.gov.scot/Topics/Environment/Countryside/Landusestrategy

[145] SAC Consulting, undated. *Farming for a Better Climate*. Available at: https://www.sruc.ac.uk/info/120175/farming_for_a_better_climate

[146] The Scottish Government, 2015. *The Future of Scottish Agriculture: A Discussion Document*. Available at: http://www.gov.scot/Publications/2015/06/6695

Environmental baseline

Introduction

3.66 Schedule 3 of the 2005 Act requires information to be provided on:

- *(2) The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.*
- *(3) The environmental characteristics of areas likely to be significantly affected.*
- *(4) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Council Directives 79/409/EEC on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild flora and fauna (as last amended by Council Directive 97/62/EC).*

3.67 Crown Estate Scotland possesses a unique mix of assets located throughout Scotland. These assets are grouped by Crown Estate Scotland into rural, coastal, marine and urban categories.

3.68 Reflecting the strong interrelationship between the coastal and marine environment, information relevant to these assets is presented together, and information on rural assets is presented separately. Crown Estate Scotland's only urban asset is discussed in the cultural heritage section. Crown Estate Scotland's marine assets cover a vast area and encompass nearly all of Scotland's seabed up to 12 nautical miles. Information has therefore been provided at a national scale in order to form a robust and comprehensive baseline which accounts for the country's unique marine environment.

3.69 The baseline information for Air and Climatic Factors also takes a Scotland wide approach as current issues are prevalent across much of Scotland. This approach also reflects wider environmental trends and the interaction of Crown Estate Scotland assets with these SEA topics.

3.70 Maps have also been prepared which illustrate the baseline information to convey the size and scale of Crown Estate Scotland's assets, and are in **Appendix 3**.

Biodiversity, fauna and flora

Rural

3.71 The Glenlivet Estate is bordered by the Cromdale Hills RSPB Important Bird Area to the north-west and the Ladder Hills SAC (the dry heaths upland habitat is identified as in unfavourable condition, the other upland habitat features are in favourable condition[147]) and SSSI to the south east which contains key habitats such as blanket bogs and alpine heath[148] (the subalpine dry heath habitats and upland assemblage are both identified as being in unfavourable condition[149]). The River Spey SAC also runs through the estate which is an important habitat for protected species such as otter, Atlantic salmon and freshwater pearl mussels[150](the freshwater pearl mussel are identified as in unfavourable condition[151], all other features are in favourable condition). There are three SSSIs within the boundary of the Glenlivet Estate. These include:

- Lower Strathavon Woods SSSI (all features in favourable condition);
- Bochel Wood SSSI (feature in favourable condition); and,
- Fodderletter SSSI (all features in favourable condition).

3.72 The Lower River Spey SSSI (the freshwater and woodland habitats are identified as being in unfavourable condition[152]) and SAC also run through the Fochabers Estate which contains special features of fluvial geomorphology[153]. This also forms part of the Moray and Nairn Coast Ramsar

[147] As dated 2007 and 1999 respectively. www.environment.gov.scot
[148] SNH, Sitelink: Ladder Hills SSSI. Accessed 23/05/19:Available at: https://sitelink.nature.scot/site/887
[149] As dated 2007 and 2013 respectively. www.environment.gov.scot
[150] SNH, Sitelink: River Spey SAC. Accessed 23/05/19:Available at: https://sitelink.nature.scot/site/8365
[151] As dated 2014 for freshwater pearl mussel, and 2011 for all other features. www.environment.gov.scot
[152] As dated 2000 and 2013 respectively. www.environment.gov.scot
[153] SNH, Sitelink: Lower River Spey SSSI. Accessed 23/05/19:Available at: https://sitelink.nature.scot/site/1107

site which supports a variety of important wetland features as well as populations of migrating geese and over-wintering wader[154].

3.73 The Roslin Glen SSSI and Country Park[155], designated for its upland mixed ash woodland, is situated within the Whitehill Estate, and is identified as in unfavourable condition[156].

3.74 There are no designated sites of nature conservation within the boundaries of the Applegirth Estate.

3.75 Interests relating to Mines Royal cover expansive areas of the country including the highlands and lowlands of Scotland. As such their biodiversity, fauna and flora can experience significant variation.

Coastal and marine

3.76 Some of Crown Estate Scotland's coastal assets are close to machair habitats[157]. Machair is unique to north-west Scotland and Ireland and supports a significant number of rare plant species and animals such as the corncrake, a species of bird on the Red list[158]. Coastal habitats support a significant number of plants and animals including marine birds and seals. An estimated 36% of the world grey seal population breeds in Scotland. Coastal environments, such as saline lagoons and estuarine habitats mark the transition from freshwater to seawater. These environments support numerous specialist plants and animals able to cope with the changes in both salinity and temperature.[159]

3.77 It is estimated that Scotland's seas are among the most biologically productive in the world, supporting an estimated 6,500 species of animals and plants. Scotland's (0 – 12 nautical miles) and offshore waters (more than 12 nautical miles) also support important species and habitats including more than 20 species of marine mammals such as whales and dolphins as well as internationally important seabird populations. Many of these are of significant regional or international importance for biodiversity conservation.[160]

3.78 There are a total of 18 Nature Conservation Marine Protected Areas (NCMPA) designated within Scottish territorial waters, defined as within 12 nautical miles of Scotland's coast. These NCMPA are important areas for species such as black guillemot. In addition to the NCMPA, there are 11 offshore SACs covering a total area of 3,095,000 ha around Scotland[161]. Many of Crown Estate Scotland's assets are located within these designations.

3.79 In addition, 13 marine SPAs have been proposed. The proposals for classification cover over 15,650 km^2 of Scotland's seas (including the Solway Firth, which also includes English territorial waters) and overall will provide protection for 31 species of marine birds. The proposals include important areas for non-breeding divers, grebes and sea ducks, aggregations of foraging seabirds, and foraging areas for breeding red-throated diver and four tern species: Arctic tern, common tern, little tern and Sandwich tern. Final advice and recommendations on this network to Scottish Minsters was published in December 2018[162].

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[154] JNCC, 1997, Ramsar Information Sheet: Moray and Nairn Coast. Available at: http://jncc.defra.gov.uk/pdf/RIS/UK13048.pdf

[155] SNH, SiteLink: Roslin Glen SSSI. Accessed 23/0

[156] As dated 2008, in information on Scotland's Environment www.environment.gov.scot

[157] SNH, Annex 1 Habitat Map of Scotland – H21A0 Machair. Available at: https://www.nature.scot/sites/default/files/2017-06/A2094556.pdf

[158] Wildlife Trust, Machair. Accessed 23/05/2019. Available at: https://www.wildlifetrusts.org/habitats/coastal/machair

[159] Scottish Government, 2018, Marine Protected Area Network -2018 Report to Scottish Parliament. Available at: https://www.gov.scot/publications/marine-protected-area-network-2018-report-scottish-parliament/pages/4/

[160] ClimateXChange, Marine and Coastal Change Indicators and Trends. Available at: https://www.climatexchange.org.uk/research/indicators-and-trends/natural-environment/marine-and-coastal-change/

[161] Scottish Government, 2017. High Level Summary of Statistics [pdf]. Available at: http://www.gov.scot/Resource/0052/00525561.pdf

[162] SNH and JNCC (2018) Final advice and recommendations on a network of proposed marine Special Protection Areas. Accessed 27/8/19. Available at https://www.nature.scot/sites/default/files/2019-03/Marine%20Special%20Protection%20Areas%20-%20Final%20advice%20to%20Scottish%20Government.pdf

Existing pressures

3.80 Key existing pressures on biodiversity, flora and fauna across Scotland include climate change, invasive species and land use changes and management practices.

3.81 Climate change is the greatest threat to Scotland's biodiversity, predominantly through effects on habitats. Some of these habitats are and will continue to face direct impacts, whilst others may feel the indirect affects through changes to the intricate ecological balances that are key to the survival of many plants and animals[163].

3.82 Habitats affected include machair habitats which some of Crown Estate Scotland's coastal habitats are in close proximity to. Due to their low-lying coastal location, these are likely to be flooded and lost due to sea level rise as a result of climate change[164]. Other habitats directly affected include rivers, which are likely to flood more frequently with changes to precipitation patterns, and habitats that rely on reef forming corals which are likely to be affected by ocean acidification from rising atmospheric CO_2[165].

3.83 Climate change may also affect many of Scotland's species which are highly adapted to specific conditions. For example, it may be the case that climatic changes disrupt the natural coincidence of birds hatching and prey being available, or flowers opening up when pollinators are active[166].

3.84 Invasive species also pose a risk to biodiversity through invading the habitats of native species and outcompeting them. In Scotland, some of the most damaging invasive species include rhododendron and Japanese knotweed[167].

3.85 Land use changes and development also result in habitat and biodiversity loss depending on the total area required for new infrastructure and other ancillary developments.

3.86 Energy production, coastal and port infrastructure, increased demand for natural resources (e.g. fishing) can cause damage to seabed. The cumulative effect of these activities can impact upon the structure and function of seabed habitats as well as changes in the richness and composition of marine species.

Population and human health

Coastal and marine

3.87 Coastal communities, defined as living within 5km of the coast, represent 41% of the total population of Scotland. Further breakdown of this figure shows that a majority of the of the coastal population (68%) lives within the "developed coast" which comprises urban areas such as large towns or cities like Glasgow, Edinburgh and Aberdeen. The 'isolated coast' is remote and sparsely populated but overall contains 18% of Scotland's coastal population while the remaining 14% of the coastal population lives within the 'undeveloped coast' which largely consists of smaller towns and rural holdings as well as land which is used primarily for forestry and agriculture[168].

3.88 The Scottish islands include a high proportion of coastal communities. The 2011 census recorded 94 Scottish islands as having a resident population, with 89 of these islands located offshore. Data from the 2011 census shows the number of people living on inhabited islands was 103,702, representing 2% of the population of Scotland. Four of the islands with residents had a population of 10,000 or more with Lewis and Harris (21,031) having the largest population. Mainland Shetland (18,765), Mainland Orkney (17,162) and Skye (10,008) also have large island

[163] SNH, Sitelink: Climate Change Impacts in Scotland. Accessed 03/05/19. Available at: https://www.nature.scot/climate-change/climate-change-impacts-scotland
[164] Ibid
[165] Ibid
[166] SNH Sitelink: Climate Change Impacts in Scotland: Impacts on species. Accessed 03/05/19. Available at: https://www.nature.scot/climate-change/climate-change-impacts-scotland/impacts-species
[167] SNH Sitelink: Invasive non-native plants. Accessed 03/05/19. Available at: https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/invasive-non-native-species/invasive-non-native-plants
[168] James Hutton Institute, 2011, Scotland's Coastal Assets. Available at: https://www.hutton.ac.uk/sites/default/files/files/publications/hutton_coast_booklet_web.pdf

populations. Combined, they account for nearly two-thirds (65 per cent) of the total population of Scotland's islands[169].

Rural

3.89 Crown Estate Scotland has a significant number of assets throughout the country with many of these located in rural areas. Important assets include the 37,000 hectares of land on four rural estates with residential and commercial properties, agricultural tenancies and forestry operations. There are a total of 507 tenants across the Estates. **Table 3.1** provides a breakdown of the number of tenants for each estate.

Table 3.1 Number of tenants for each Crown Estate Scotland estate

Estate	Administrative Boundary	Number of Tenants
Applegirth	Dumfries and Galloway Council	116
Fochabers	Moray Council	207
Glenlivet	Cairngorms National Park Authority	154
Whitehill	Midlothian Council	30

3.90 **Applegirth Estate** is located within the administrative boundary of Dumfries and Galloway Council. According to the mid-2018 population estimates, the population of Dumfries and Galloway is 148, 790, placing it as the 13th highest population among the 32 local authorities[170]. There has been a 0.3% decrease in the population from 149,200 in 2017[26]. There are more women (51.4%) than men (48.6%) living in Dumfries and Galloway. Life expectancy in Dumfries and Galloway is higher for women (81.8 years) than men (77.8 years)[171]. This is higher than the national average is 77.0 years for males and 81.1 years for females. In 2017, the leading cause of death among men in Dumfries and Galloway was ischemic heart disease while the leading cause among women was dementia and Alzheimer's[26].

3.91 **Fochabers Estate** is located within the administrative boundary of Moray Council. Mid-population estimates place the population of Moray at 95,510[172]with more women (50.5%) than men (49.5%). The population of Moray has seen an increase of 10% between 1998 and 2018. In 2018, the average life expectancy for women in Moray was 81.9 while life expectancy for men was 78.7. This is higher than the national average which is 81.1 and 77.0 respectively. 17.7% of population live with a long-term activity-limiting health problem or disability while 85% of population described their general health as 'Very good' or 'Good'[173]. Similar to the trend seen in Dumfries and Galloway, the leading cause of death among men was ischemic heart disease while dementia and Alzheimer's was the leading cause among women[174].

3.92 **Glenlivet Estate** is located within the administrative boundary of the Cairngorms National Park Authority. The total population living within the Cairngorms National Park is roughly 18,420 with more women (50.5%) than men (49.5%)[175]. The largest age group within the park is those aged 45-49 years old. The area has a low population density with an estimated 4.2 people per square kilometre[176]. The majority of the population reside in Aviemore, Ballater, Braemar, Grantown-on-Spey, Kingussie, Newtonmore, and Tomintoul. The life expectancy of the women living within the National Park is estimated to be 82.3 for women and 79.0 for men. The population in the

[169] National Records of Scotland, 2013, 2011 Census: First Results on Population and Household Estimates for Scotland - Release 1C (Part Two). Available at: https://www.scotlandscensus.gov.uk/documents/censusresults/release1c/rel1c2sb.pdf
[170] National Records of Scotland, 2019 Dumfries and Galloway Council Area Profile. Available at: https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/dumfries-and-galloway-council-profile.html
[171] National Records of Scotland, 2016, Life Expectancy for Areas within Scotland https://www.nrscotland.gov.uk/files/statistics/life-expectancy-areas-in-scotland/14-16/life-expect-publication.pdf
[172] Moray Council, 2017, Area Profile 2017. Available at: http://www.yourmoray.org.uk/downloads/file111488.pdf
[173] National Records of Scotland, 2017, Interactive Maps. Available at: https://www.scotlandscensus.gov.uk/ods-web/datavis.jsp?theme=Health_September_2013
[174] National Records of Scotland, 2018, Moray Council Area Profile. Available at: https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/moray-council-profile.html
[175] Cairngorms National Park Authority, 2015, Strategic Environmental Assessment Scoping Report: Population and Human Health Environmental Baseline. Available at: https://cairngorms.co.uk/wp-content/uploads/2015/11/151105PDF02Appendix2Topic81.pdf
[176] Cairngorms National Park Authority, 2016, Cairngorms National Park Key Facts. Available at: https://visitcairngorms.com/keyfacts

National Park is healthier than the Scottish average. According to the 2011 Census, the proportion of people with long term health problems was recorded at 6.8% compared to the national average of 9.6%.

3.93 **Whitehill Estate** is located within the administrative boundary of Midlothian. The population of Midlothian was around 91,340 in 2018 with more females (51.9%) than males (48.1%) living in Midlothian. Between 1998 and 2018, the population of Midlothian has increased by 14.0%. This is the 5th highest percentage change out of the 32 council areas in Scotland. Life expectancy at birth was higher for females (81.6 years) than for males (77.9 years) in 2015-17[177]. 82.9% of the population describe their health as good or very good, and 19.4% of the population are living with a long term activity limiting health problem or disability.[178]. In line with the trends for Scotland the leading cause of death for males in 2017 was ischaemic heart diseases followed by dementia and Alzheimer's disease.

Existing pressures

3.94 Based on the 2016 population projections, Scotland's population is projected to age as the large number of people who were around aged 50 in 2016 move into the 75+ age bracket by 2041. Subsequently, people aged 75 and over are projected to be the fastest growing age group in Scotland, increasing by 27% over the next ten years and 79% over the next 25 years[179].

3.95 With the exception of Lewis, the population of Scottish islands has experienced continued decline from 2001 to 2011[180]. If population numbers continue to drop, there may be risk of demographic imbalances with fewer services directed towards these areas as a result of much lower population numbers potentially leading to increasing isolation among island communities.

Soil

3.96 Scotland's soils are diverse and are significantly different from those in the rest of the UK. The majority have acidic and organic-rich surface layers. Such soils are often not managed intensively. As a result, they generally have a high biodiversity and landscape value. Scotland's soils are an important carbon sink.

Coastal and marine

3.1 The Scottish coast contains a number of rare coastal soils ranging from calcareous soils found in machair environments along the west Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland[181]. The majority of Crown Estate Scotland's coastal assets have limited agricultural capability and tend to have low organic material within the top soils.

3.2 Coastal and marine environments are also important repositories for carbon in the marine environment. Known as "blue carbon stores", an estimated 18 million tonnes (MtC) of organic carbon are stored with the top 10cm of sediments across the 470,000km^2 area of Scotland's seas[182].

3.3 Current literature states that blue carbon habitats and species may be relatively abundant in Scottish waters when compared to other coastal areas in the UK and Europe, and may be more significant than terrestrial carbon stores. The degradation or damage of these ecosystems may

[177] https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/midlothian-council-profile.html
[178] https://www.scotlandscensus.gov.uk/ods-web/datavis.jsp?theme=Health_September_2013
[179] National Records of Scotland, 2017, Projected Populations of Scotland. Available at: https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/population-projections-scotland/2016-based
[180] Comhairle nan Eilan Siar, 2011, Island Populations. Available at: https://www.cne-siar.gov.uk/strategy-performance-and-research/outer-hebrides-factfile/population/island-populations/
[181] James Hutton Institute, 2016, Coastal Soils. Available at: https://www.hutton.ac.uk/research/themes/managing-catchments-and-coasts/consultancy/coastal-assets/coastal-soils
[182] Scottish Natural Heritage, 2014, Assessment of carbon budgets and potential blue carbon stores in Scotland's coastal and marine environment. Available at: https://www.nature.scot/snh-commissioned-report-761-assessment-carbon-budgets-and-potential-blue-carbon-stores-scotlands

cause carbon to be released from stores, and may also compromise the ability to sequester carbon in the future[183].

Rural

3.4 The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland[184].

3.5 It is estimated that Scotland's soils contain 3,000 million tonnes (Mt) of carbon, of which peatlands alone contain about 1,600 million tonnes (Mt) of carbon[185]. Other soils also act as a sink for greenhouse gases. Agricultural soils have the potential to hold an estimated 115 megatonnes, which would be the equivalent of 22% of total carbon dioxide (CO_2) emissions from Scotland's energy sector[186].

3.6 Peatland soils make up a significant portion of Scotland's land surface, including at the location of many Crown Estate Scotland assets[187]. With the exception of Whitehill, the three rural estates contain significant areas of Class 1 and Class 2 peat. Class 1 and Class 2 peat are defined as nationally important carbon-rich soils, deep peat and priority peatland habitat[188].

Existing pressures

3.7 Coastal erosion is the primary threat to Scotland's coastal soils. The Eurosion project carried out in 2004 found that approximately three quarters of Scotland's coast was considered stable while 8% was deemed to be accretional and 12% to be erosional[189]. The coastal environments which are considered to be the most sensitive to erosion consist of beaches, sand dunes, machair, marshes and soft-rock cliffs.

3.8 Coastal erosion is also a significant issue for assets located within coastal communities. Approximately 19% of the Scottish coastline comprises soft rock with around half to a third of coastal buildings, road, rail and water infrastructure lie within these erodible sections. If recent erosion rates continue in the future, it is estimated that by 2050 at least 50 residential and non-residential buildings, 1.6 km of railway, 5.2 km of road and 2.4 km of clean water network will be lost.

3.9 Coastal erosion rates are also expected to worsen under climate change with large numbers of assets at risk. This includes roughly 30,000 buildings, 1,300 km of roads and 100 km of railway lines[190].

3.10 Land management practices, particularly agricultural land management, can also affect the ability of land to slow down and store runoff[191]. Agricultural practices that result in a higher risk of soil erosion and compaction, as well as leave less over-winter vegetation cover, can reduce the

[183] Marine Scotland Topic Sheet Number 64 Blue Carbon. Available at: https://www2.gov.scot/Resource/0053/00532257.pdf
[184] Scottish Government, 2006. Scotland's Soil Resource – Current State and Threats – Chapter 7: Soil Contamination. Available at: http://www.gov.scot/Resource/Doc/149337/0039742.pdf
[185] Scottish Government, 2010. *Executive Summary: Management of Carbon-Rich Soils – Overview and Discussion Paper*. Available at: http://www.gov.scot/Resource/Doc/921/0109512.pdf
[186] Scottish Natural Heritage, 2017. *Managing nature for carbon capture*. Available at: https://www.nature.scot/climate-change/taking-action/carbon-management/managing-nature-carbon-capture
[187] Scotland's Soils, 2016. *Carbon and peatland 2016 map*. Available at: http://soils.environment.gov.scot/maps/carbon-and-peatland-2016-map/
[188] SNH, 2016, Carbon and Peatland Map 2016. Accessed 23/05/2019. Available at:
[189] Scottish Natural Heritage, 2017, Coastal Erosion. Available at: https://www.nature.scot/landforms-and-geology/scotlands-rocks-landforms-and-soils/landforms/coasts/coastal-erosion
[190] Hansom, J.D., Fitton, J.M., and Rennie, A.F. (2017) Dynamic Coast - National Coastal Change Assessment: Summary, Available at: http://www.dynamiccoast.com/files/reports/NCCA%20-%20Summary%20-%203%20page.pdf
[191] Scottish Environment Protection Agency, 2015. *Natural Flood Management Handbook*. Available at: https://www.sepa.org.uk/media/163560/sepa-natural-flood-management-handbook1.pdf

potential for infiltration of surface runoff and associated pollutants, contributing to both flooding and pollution[192].

Water

Coastal and marine

3.11 Scotland has approximately 48,000 km^2 of coastal waters, which include internal waters and sea within a three mile limit, which vary from sheltered sea lochs to exposed shoreline[193], with Crown Estate Scotland managing approximately 590km^2 square of foreshore[194]. Approximately 97% of Scotland's coastal waters are in good or high condition as assessed under the Water Framework Directive with the remaining 3% classed as "moderate"[195]. Additionally, only 69% of Scotland's bathing waters were classed as Good or Excellent under the Water Framework Directive. There has been a steady improvement in bathing water quality over the last 27 years following investment by governing bodies and the rural agricultural community in reducing the levels of pollutants entering bathing water.

3.12 The Marine Strategy Framework Directive monitoring results for the UK (Scottish Waters included) set outs a comprehensive framework for assessing and monitoring a number of biological, ecological and chemical parameters which must be met to achieve Good Environmental Status (GED).

3.13 The Marine Strategy Framework Directive provides a more comprehensive reflection of the status of Scottish Waters and operates on at a much broader scale.

3.14 In May 2019, GES for eutrophication, hydrographical conditions and contaminants in UK has largely been achieved for marine and coastal waters. However, GES has not been achieved for marine litter. Levels of beach litter in the Celtic Seas have remained largely stable since previous assessment in 2012, whilst beach litter levels in the Greater North Sea have seen a slight increase[196].

3.15 The marine waters surrounding the coastline out to 12 nautical miles are Scotland's territorial seas[197], within which the majority of Crown Estate Scotland's marine assets are located[198]. These extend into Scotland's offshore waters, which extend out to 200 nautical miles[199]. Together, Scotland's seas cover 460,000km^2, equating to six times the landmass of Scotland.

3.16 Scotland's seas range from shallow shelf seas classed as less than 200m deep and contain features such as banks and deep channels, to deep oceans more than 2000m deep. Under the Water Framework Directive, Scotland's seas are largely classed as being of good or better ecological status. However, there are areas of poorer water quality, specifically the Firth of Forth and the Firth of Clyde.

Rural

3.17 Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area[200] with the River Clyde and the River Avon encompasses within these assets. Rivers, lochs, canals

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[192] Ibid.

[193] Scotland's Environment, 2016, Scotland's Seas. Available at: https://www.environment.gov.scot/our-environment/water/scotland-s-seas/

[194] Crown Estate Scotland, 2017, Draft Corporate Plan 2017 – 2020. Available at: https://www.crownestatescotland.com/maps-and-publications/download/115

[195] Ibid.

[196] DEFRA, 2019, Marine Strategy part one: UK updated assessment and Good Environmental Status – Consultation Document. Available at: https://consult.defra.gov.uk/marine/updated-uk-marine-strategy-part one/supporting_documents/UKmarinestrategypart1consultdocumentfinal.pdf

[197] Scottish Government, 2015. *Scotland's National Marine Plan*. Available at: http://www.gov.scot/Publications/2015/03/6517

[198] Crown Estate Scotland, 2018. *The assets map*. Available at: http://www.crownestatescotland.com/the-assets/map

[199] Scottish Government, 2015. *Scotland's National Marine Plan*. Available at: http://www.gov.scot/Publications/2015/03/6517

[200] VisitScotland, Glasgow and the Clyde Valley. Available at: https://www.visitscotland.com/destinations-maps/glasgow-clyde-valley/

and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK[201].

3.18 In recent decades, significant improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status[202].

Existing pressures

3.19 Although there have been improving trends in water quality, key risks to water quality within the marine environment include contamination from shipping such as the use of anti-fouling paint, pollution from oil and/or chemical spills, and pollution of coastal waters from activities on land, in particular from agricultural activities.

Air

3.20 Air pollution has become an increasingly prominent environmental issue for numerous countries and in this case, Scotland is no exception. Scotland is considered to have moderate levels of air quality. In most areas however, the majority of ambient pollutions are currently well below limits set for protecting human health and the environment. It is estimated that air quality levels in Scotland will remain stable or continue to improve[203]

3.21 Since the 1950's, air quality in Scotland has improved significantly as pollutants such as lead, carbon monoxide and sulphur dioxide have declined with the introduction of more stringent environmental controls on industry. Currently, road transport and industrial emissions account for a large share of air pollution. The main air pollutants concern in Scotland are nitrogen oxides (NO_x), particulate matter (PM_{10} and $PM_{2.5}$), sulphur dioxide (SO_2), non-methane volatile organic compounds (NMVOCs), ground level ozone (O_3) and ammonia (NH_3)[204]. In Scotland, just over one-sixth of Scotland's total PM_{10} emissions and over one-third of the total nitrogen oxide emissions are generated through transport movements[205].

3.22 In Scotland, there are 99 monitoring sites for ambient pollutants, with a few being run as part of a UK-wide monitoring network. There are a total of 38 Air Quality Management Areas (AQMA) across 14 local authorities with the majority of these AQMA concentrated in densely populated, urban locations as opposed to rural areas, with transport being the primary source of pollution[206]. The four local authorities which contain the **Applegirth** (Dumfries and Galloway Council), **Fochabers** (Moray Council), **Glenlivet** (Cairngorms National Park Authority) and **Whitehill** (Midlothian Council) estates currently have no AQMAs declared[207].

3.23 Coastal areas also experience traffic related air pollution. Crown Estate Scotland is responsible for the management of nearly half of Scotland's foreshore including 5,800 moorings as well as some ports and harbours[208]. Ships release a significant fraction of man-made air pollutants which include nitrogen oxide (NO_x), sulphur oxides (SOX), particulate matter (PM) and volatile organic compounds (VOC) which can have significant impacts on air quality, particularly in local

[201] Scotland's Water Environment, 2014. *Scotland's State of the Environment Report, 2014*. Available at: https://www.environment.gov.scot/media/1170/state-of-environment-report-2014.pdf
[202] Scotland's Environment, 2014. *Rivers and Canals*. Available at: https://www.environment.gov.scot/media/1179/water-rivers-and-canals.pdf
[203] Scotland's Environment, 2014. *June 2014 State of the Environment Report*. Available at: https://www.environment.gov.scot/media/1170/state-of-environment-report-2014.pdf
[204] Transport Scotland, 2017. Scottish Transport Statistics No 35: 2016 Edition. Available at: https://www.transport.gov.scot/media/33814/sct01171871341.pdf
[205] Scottish Government, 2015, Cleaner Air for Scotland. Available at: https://www2.gov.scot/Resource/0048/00488493.pdf
[206] Scottish Government, 2015, Cleaner Air for Scotland. Available at: https://www2.gov.scot/Resource/0048/00488493.pdf
[207] Air Quality in Scotland, 2019, Local Air Quality Management. Available at: http://www.scottishairquality.scot/laqm/
[208] Crown Estate Scotland, 2019, The assets. Available at: https://www.crownestatescotland.com/what-we-do

authorities with major ports[209]. Further information suggests that roughly 89% of North Sea ship emissions are within 50 nautical miles of the coast and 97% are within 100 nautical miles[210].

Existing pressures

3.24 Road transport and industrial emissions accounting for a significant share of air pollutant emissions[211]. Existing pressures included the continued rise of car ownership within Scotland. Private car ownership is also increasing with 70% of households having one or more cars in 2015 with rural areas having higher numbers of cars per 1,000 people[212]. Air pollution remains a chronic issue in many areas, particularly urban locations that experience high volumes of traffic[213].

3.25 Scotland is not yet fully compliant with EU and Scottish legal requirements for air quality. The main reasons for non-compliance include trends such as an increase in the diesel fleet over the last decades. In 2015, approximately 137, 700 cars sold were diesel propelled[197]. Additionally there has been a steady increase in the total number of vehicles since 2004, limited integration of air quality policies and the transboundary nature of emission sources[214]. Other major drivers behind air pollution include emissions from industry, energy, agriculture, as well as household activities[215].

3.26 Air pollution can have significant impacts on health, particularly elderly people, children and those who are immunocompromised.

Climatic factors

3.27 Climate change is expected to affect the entirety of Scotland. As such, all of the Scottish Crown Estate is likely to experience some form of effects from climate change ranging from temperature increases to rising sea levels.

3.28 Scotland has a temperate maritime climate characterised by generally cool summers, mild winters and rainfall spread throughout the year. However, there are regional differences due to factors such as latitude, altitude, prevailing winds and ocean currents. For instance, the south of Scotland is generally warmer than the north in summer, primarily due to differences of latitude[216].

3.29 Scotland's climate is affected by a range of global pressures including natural pressures such as the emissions of particles from volcanoes. The Intergovernmental Panel on Climate Change (IPPC)[217] reports that existing scientific evidence reveals with at least 95% certainty that human activity is the main cause of global warming over the last century. The main greenhouse gases causing rapid changes in climate are carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4),

[209] Scottish Government, 2018, Local Air Quality Management Policy Guidance. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2018/04/local-air-quality-management-policy-guidance-pg-s-16/documents/00534614-pdf/00534614-pdf/govscot%3Adocument/00534614.pdf

[210] Air Quality Expert Group, 2017, Impacts of Shipping on UK Air Quality. Available at: https://uk-air.defra.gov.uk/assets/documents/reports/cat11/1708081025_170807_Shipping_Report.pdf

[211] Scottish Government, 2015. *Cleaner Air for Scotland – The Road to a Healthier Future*. Available at: http://www.gov.scot/Resource/0048/00488493.pdf

[212] Transport Scotland, 2016, Road Transport Vehicles. Available at: https://www.transport.gov.scot/publication/scottish-transport-statistics-no-35-2016-edition/sct01171871341-04/

[213] Scotland's Environment, 2014. *Get Informed – Air – Air Quality*. Available at: https://www.environment.gov.scot/get-informed/air/air-quality/

[214] Scottish Government, 2015. *Cleaner Air for Scotland – The Road to a Healthier Future*. Available at: http://www.gov.scot/Resource/0048/00488493.pdf

[215] Scotland's Environment, 2014. *June 2014 State of the Environment Report*. Available at: https://www.environment.gov.scot/media/1170/state-of-environment-report-2014.pdf

[216] Scotland's Environment, 2014. June 2014 State of the Environment Report. Available at: https://www.environment.gov.scot/media/1170/state-of-environment-report-2014.pdf

[217] Intergovernmental Panel on Climate Change, 2013. Climate Change 2013 – The Physical Science Basis. Available at: http://www.ipcc.ch/report/ar5/wg1/

ozone (O_3) and water vapour (H_2O)[218]. According to the Scottish Government, Scotland's GHG emissions are down 49% from 1990 levels and 10.3% from 2015 levels[219].

3.30 Global increases in concentrations of carbon dioxide (CO_2) are primarily from transport, burning fossil fuels and changes in land use, whilst increases in methane (CH_4) and nitrous oxide (N_2) are mainly due to agriculture activities and landfills[220].

3.31 Land use also affects greenhouse gas emissions, for example agriculture (including associated land use) is the second largest contributor to Scottish emissions (after transport at 37%), accounting for just over a quarter of Scotland's total in 2016. Methane and nitrous oxide are emitted in significant quantities by agriculture. These are inherent in food production due to biological processes and chemical interactions in both livestock and plant growth.[221] Forests are important carbon sinks, and the Scottish Government is committed to increasing forest cover.

3.32 A quarter of Scotland is covered by peat – an important carbon sink which also prevents flooding, filters water and provides important habitats. The condition of peatlands is important for how well it captures and stores carbon. Peatlands that dry out will release carbon and contribute to climate change. Some peatland management practices have contributed to this through drainage, heavy grazing or inappropriate burning. The management of land has significant impacts on the role that an area of land plays in natural flood management, which in turn provides wider benefits to environment.

3.33 Due to the global extent of climate change, transboundary effects may impact on Scotland's climate. The magnitude of the transboundary effect for specific types of climate impact will depend on the size of the direct climate effect[222].

3.34 Updated figures from UKCP18 provide projections for Scotland's future climate based on a number of emission scenarios. Across Scotland, temperatures are projected to increase over the next century with hotter summers and milder winters expected. In addition to projected temperature rises, more unpredictable and extreme weather events such as heavier rain days, particularly during the winter months, are also expected to increase[223]. Anthropogenic activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels with global temperatures likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate[224]. Furthermore, annual rainfall has increased by about 7% between 1961-1990 and 1981-2010[225].

3.35 Based on projections for 2020 (reflecting the timeframe of the Draft Corporate Plan) and RCP6.0, the central estimate of increase in mean summer temperature for Scotland is 0.6^0C while the mean winter temperature is projected to rise by 0.7^0C. The central estimate for precipitation of change in mean winter precipitation is 6% while mean summer precipitation is projected to change by -1%. Global sea level has risen over the 20th century and will continue to rise[226]. The UKCP18 sea level rise for 2020 in Edinburgh, Scotland indicates that it is unlikely to be less than 0.02m and it is unlikely to be more than 0.08m[227].

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[218] Scotland's Environment, 2017. Climate – Changing Climate. Available at: https://www.environment.gov.scot/our-environment/climate/changing-climate/

[219] Scottish Government, 2018, Greenhouse Gas Emissions. Available at: https://www2.gov.scot/Topics/Statistics/Browse/Environment/TrendGasEmissions

[220] Scotland's Environment, 2014. June 2014 State of the Environment Report. Available at: https://www.environment.gov.scot/media/1170/state-of-environment-report-2014.pdf

[221] Climate Change and Agriculture: How can Scottish Agriculture contribute to climate change targets? (2018)https://digitalpublications.parliament.scot/ResearchBriefings/Report/2018/11/8/Climate-Change-and-Agriculture--How-can-Scottish-Agriculture-Contribute-to-Climate-Change-Targets-

[222] EEA, 2019, Transboundary effects on Europe due to climate impacts in the rest of the world. Available at: https://ec.europa.eu/jrc/en/peseta-iii/transboundary-effects-europe-due-climate-impacts-rest-world

[223] Scottish Government, 2018, Climate Ready Scotland: Scottish Climate Change Adaption Programme – Fourth Annual Progress Report. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/progress-report/2018/05/climate-ready-scotland-scottish-climate-change-adaptation-programme-fourth-annual/documents/00535998-pdf/00535998-pdf/govscot%3Adocument/00535998.pdf

[224] International Panel on Climate Change, 2018, Special Report: Global Warming of 1.5^0C. Available at:

[225] Committee on Climate Change, 2017. UK Climate Change Risk Assessment 2017 Evidence Report – Summary for Scotland. Available at: https://www.theccc.org.uk/wp-content/uploads/2016/07/UK-CCRA-2017-Scotland-National-Summary.pdf

[226] Met Office, 2018, UKCP18: Key Results. Available at: https://www.metoffice.gov.uk/research/collaboration/ukcp/key-results

[227] Ibid

3.36 UK coastal flood risk is expected to increase over the 21st century and beyond under all RCP climate change scenarios. This means that we can expect to see both an increase in the frequency and magnitude of extreme water levels around the UK coastline. For example sea level rise for 2100 relative to 1981-2000 average for Edinburgh under RCP 8.5 identifies 90% of the modelled results lie within the range of 0.30m and 0.9m. The implications of future sea level change need to be taken into account in future coastal planning.

Existing pressures

3.37 Not only will Crown Estate Scotland's assets be affected in some way by climatic changes but they will also be important in contributing to climate change targets.

3.38 The Climate Change (Scotland) Act (2009) sets out targets to reduce emissions by 42% by 2020 relative to 1990, and 80% in 2050 relative to 1990[228]. Renewable energy targets are a major way the Scottish Government look to reduce emissions. In December 2017 the energy plan set a 2030 target for the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied by renewable sources. So far good progress has been made with the equivalent of 17.8% being met by renewable sources in 2015. In order to reach the 2030 target this progress will need to be continued. As Crown Estate Scotland holds the rights to seabed development to be leased for offshore wind, they have a significant role to play in the contribution to Scotland's climate change targets.

3.39 However, infrastructure such as cables and pipelines which fall within Crown Estate Scotland's marine assets may contribute to increases in greenhouse gas emissions. Pipelines associated with North Sea oil and gas extraction will lead to direct greenhouse gas emissions through the release of gas to the atmosphere during the exploration, appraisal and production stages or venting of fugitive emissions such as leakage throughout the exploration, appraisal, production or decommissioning stages. Indirect emissions may also arise through exploration and development on high carbon soils and production processes.

3.40 Climate is also closely tied to agriculture, aquaculture and forestry operations and therefore changes to climatic conditions such as precipitation patterns and average surface and water temperatures may impact upon the success of these assets through fluctuations in yields and risk of new diseases and pests[229]. Specifically for aquaculture, changes to wave exposure may also impact upon success. Similarly, the changes in frequency and severity of storms, as well as the associated increased wave height also poses a risk to existing and planned offshore renewable energy infrastructure assets[230].

3.41 In terms of any new property on Crown Estate Scotland's land, it will also be important to ensure that buildings comply with the energy efficiency standards set out in the Scottish Building Regulations.

Cultural heritage and the historic environment

Coastal and marine

3.42 There are several important cultural heritage sites located across Scotland's coast. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986[231]. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment[232].

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[228] Committee on Climate Change 2010, Scotland's Path to a Low Carbon Economy Available at: https://www.theccc.org.uk/wp-content/uploads/2010/02/CCC-Scotlands-Path-LowCarbon-Economy-2010.pdf

[229] Scottish Government 2019, Appendix B: Environmental Baseline, Climate Ready Scotland 2019-2024. Available at: https://www2.gov.scot/Publications/2019/02/6294/362868

[230] Ibid

[231] Scottish Government, 2011, Scotland's National Marine Plan Interim sustainability appraisal report.

[232] UNESCO, United Kingdom of Great Britain and Northern Ireland. Available at: https://whc.unesco.org/en/statesparties/gb

3.43 The marine environment contains an important collection of cultural heritage assets. Surviving underwater, there are more than 2,600 records of shipwrecks and aircrafts spanning an estimated 1,200 years of history with additional artefacts from submerged pre-historic landscapes[233]. There are a total of eight historic Marine Protection Areas (MPAs) which are designated within Scottish territorial waters (0-12 nautical miles) under the Marine (Scotland) Act 2010 for the purposes of preserving marine historic assets of national importance[234]. The eight historic HMPA are detailed below.

- Mingary Castle HMPA
- Duart Point HMPA
- HMS Dartmouth
- Drumbeg HMPA
- Kinlochbervie HMPA
- HMS Campania
- Out Skerries HMPA
- Iona I Paddle steamer HMPA

3.44 Other cultural heritage features include seven Scheduled Monuments including the Wrecks of German High Fleet located in Scapa Flow[235]. There are also 14 designated vessels and six controlled sites under the *Protection of Military Remains Act 1986*[236].

Rural

3.45 Scotland's historic environment encompasses thousands of historic buildings and monuments, many of which are located within Crown Estate Scotland's assets. It is estimated that over 5-10% of the historic environment in Scotland is designated, which amounts to more than 56,000 historic assets[237]. In 2018, an estimated 5,229,049 people visited Historic Environment Scotland's its staffed sites, indicating a 5% increase from the previous year and generating £620 million in local tourism expenditure[238]. Most (90-95%) of the historic environment is undesignated[239].

3.46 The Glenlivet Estate contains a number of important historic sites such as the Scalan Seminary which dates back to the 18th century, Drumin Castle, Blairfindy Castle and the Lecht iron ore mine[240]. A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate.

3.47 Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. The estate is also in close proximity to the Battle of Roslin Battlefield. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings.

Existing pressures

3.48 There are numerous threats facing Scotland's historic assets with most related to significant changes within the wider environment. Key impacts on the historic environment relate to

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[233] Scottish Government, 2018, Scottish MPA Network – Parliamentary Report. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/progress-report/2018/12/marine-protected-area-network-2018-report-scottish-parliament/documents/00544750-pdf/00544750-pdf/govscot%3Adocument/00544750.pdf

[234] Marine Scotland, 2015, National Marine Plan

[235] Historic Environment Scotland, 2018. *Scapa Flow*. Available at: https://www.historicenvironment.scot/advice-and-support/listing-scheduling-and-designations/marine-heritage/scapa-flow/

[236] Marine Scotland, 2018. *NMPI* [online]. Available at: https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=628

[237] Historic Environment Scotland, 2016. *Scotland's Historic Environment Audit 2016*. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=315b3f0d-631b-4a24-b12b-a6db00ba1696

[238] Historic Environment Scotland, 2019, News Article "Another record-breaking year for Scottish heritage sites. Available at: https://www.historicenvironment.scot/about-us/news/another-record-breaking-year-for-scottish-heritage-sites/

[239] Historic Environment Scotland, 2016. *Scotland's Historic Environment Audit 2016*. Available at: https://www.historicenvironment.scot/archives-and-research/publications/publication/?publicationId=315b3f0d-631b-4a24-b12b-a6db00ba1696

[240] Glenlivet Estate,

increasing development and land use change, depending on the total area required for new infrastructure and other ancillary development. Indirect impacts include impacts on setting arising from new development, as well as changes to surface drainage patterns[241]. Climate change is another significant issue that may affect Scotland's historic and cultural assets. Rising sea levels and increased storm events could adversely impact upon historic landscapes, structures and archaeology in the coastal zone. Coastal erosion is also anticipated to affect cultural heritage sites with sites such as the Heart of Neolithic Orkney, adjacent to Crown Estate Scotland's coastal asset Brough Head[242], considered to be at a high risk from issues relating to climate change[243]

3.49 Intense rainfall events could cause flooding and erosion in historic settlements and archaeological sites. Further threats include water damage to masonry, which in turn could increase the risk of dampness, condensation, mould/fungal growth, algal growth and accelerated decay of building materials. Furthermore, changes in hydrology may alter vegetation patterns in the setting of designated sites, historic landscapes and archaeological remains.

Landscape and geodiversity

Coastal and marine

3.50 Many of Scotland's National Scenic Areas (NSAs) are concentrated around the coast, particularly the north and west with greater focus on upland and coastal landscapes. There are a total of 40 NSA, covering approximately 13% of the land with more than half containing some form of coastal or marine element[244].

3.51 Scotland's landscapes play an important role in enhancing visitor experience and, thus, generating socio-economic benefits derived from the tourism industry. Further tangible benefits are derived from providing opportunities for recreation. For instance, rivers are important recreational resources, providing a place for a wide variety of activities such as fishing or swimming[245].

3.52 There is vast geodiversity in the range of seabed habitats and sediments. Coal, evaporite and metallic mineral resources are located on or beneath the sea bed and these have been worked from onshore deep mines which extend for limited distances under the sea. However, the minerals industry has declined over recent years but substantial resources remain[246].

Rural

3.53 Crown Estate Scotland manages the rights to gold and silver across most of Scotland[247]. The Mines Royal is spread across the country and covers a total area of 6696.43 km^2. **Table 3.2** shows the location and areas of current lease option agreements.

[241] Historic Environment Scotland, undated. *Assessing impacts on the historic environment*. Available at: https://www.historicenvironment.scot/advice-and-support/planning-and-guidance/environmental-assessment/assessing-impacts-on-the-historic-environment/#potential-impacts_tab

[242] Crown Estate Scotland, 2018. *The assets map*. Available at: http://www.crownestatescotland.com/the-assets/map

[243] Historic Scotland, 2012. *A Climate Change Action Plan 2012-2017*. Available at: https://www.historicenvironment.scot/media/2611/climate-change-plan-2012.pdf

[244] Scottish Government, 2013, Planning Scotland's Sea: National Marine Plan SEA. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/consultation-paper/2013/07/national-marine-plan-sustainability-appraisal-report/documents/00428327-pdf/00428327-pdf/govscot%3Adocument

[245] Scotland's Environment, 2014. *Rivers and canals*. Available at: https://www.environment.gov.scot/media/1179/water-rivers-and-canals.pdf

[246] British Geological Society, 2013, The Mineral Resources of Scottish Waters and the Central North Sea. Available at: http://www.marineaggregates.info/images/publications/SandAndGravelResourcesOfTheUKCS-ScottishWatersAndTheCentralNorthSeaReport.pdf

[247] Crown Estate Scotland, 2019, The assets. Available at: https://www.crownestatescotland.com/what-we-do

Table 3.2 Location and areas of current lease option agreements

Mine Name[248]	Area (km^2)
Cononish	1.43
Towie	248
Alford	248
Glen Lyon	1231
Glen Orchy	991
Lagalochan	188
Inverliever	651
Knapdale	650
Ochill Hills	514
Foreburn	250
St Johns Town of Dalry	249
Newton Stewart	250
Rhins of Galloway	247
New Cumnock	247
Barr	245
Loch Tay	237
Gairloch	249

3.54 There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal[249]. Scotland's National Parks have also been recognised for their geodiversity value – 12.8% of the Cairngorms National Park and 1.5% of the Loch Lomond and The Trossachs National Park having Geological Conservation Review (GCR) site status.

3.55 The protection of these areas is crucial to rural economic development and recreation, as well as the conservation of diverse natural habitats.

Existing pressures

3.56 Climate change is a key pressure on landscape and geodiversity. Since climatic factors have helped to shape both the landscape and geology of Scotland, climatic changes are expected to greatly influence the dynamics of landform processes particularly through increasing flooding and rates of erosion.

3.57 The greatest landscape changes expected are to coastal areas as a result of sea level rise where land could be lost to the sea[250]. Increased erosion is also expected to cause changes particularly to river banks and exposed slopes. On slopes with a propensity for waterlogging, increased risk of slope failure may also be seen[251]. While these pressures risk the loss of certain features, they also have the potential to expose new exposures and sites of geological interest.

3.58 Other existing pressures on landscape and geodiversity include development and land use changes. This depends on the total area required for new infrastructure and other ancillary development, as well as impacts on setting arising from new development, as well as changes to surface drainage patterns.

[248] Crown Estate Scotland, 2019, Minerals: Crown Estate Scotland Mines Royal Options and Leases. Available at: https://www.crownestatescotland.com/what-we-do/rural/asset/minerals

[249] Crown Estate Scotland, 2018. *The assets map*. Available at: http://www.crownestatescotland.com/the-assets/map

[250] SNH Sitelink: Geodiversity and Climate Change Accessed: 03/05/19. Available at: https://www.nature.scot/climate-change/climate-change-impacts-scotland/geodiversity-and-climate-change

[251] Ibid

Material assets

Coastal and marine

3.59 As Crown Estate Scotland's asset encompasses the vast majority of Scotland's seabed to 12 nautical miles, it contains a significant amount of development relevant to the whole of Scotland.

3.60 Aquaculture has become an increasingly important industry for Scotland, helping to sustain economic growth and supporting over 8,800 livelihoods in rural and coastal communities in the north and west of Scotland. It is also important to the Scottish economy, contributing £1.8bn each year[252].

3.61 Aquaculture largely involves the farming or culturing of fish, molluscs, crustaceans and seaweed, producing a valuable food export. Crown Estate Scotland identify that the seabed encompasses roughly 750 fish farming sites[225].

3.62 The Scottish aquaculture industry is led by Atlantic salmon farming, but also produces significant quantities of rainbow trout and mussels[253]. In 2016, the export sales of Atlantic salmon were estimated at £600 million with salmon as Scotland's top food export[254].

3.63 Crown Estate Scotland is also responsible for the management and leasing of occupation rights to the seabed for renewable energy development. As Scotland is a net exporter of electricity, energy generation and distribution is a nationally important sector in the country. In 2015, the amount of electricity generated in Scotland by renewable sources equated to 59.4% of the gross annual consumption of electricity in Scotland[255].

3.64 Offshore wind is a continually growing sector to which Crown Estate Scotland is closely linked given its rights to lease the seabed for this activity out to 200nm. The 588MW Beatrice project in the Moray Firth is now operational; Moray East (950MW) in the Moray Firth is now under construction and Neart na Gaoithe (450MW) in the Outer Forth/Tay is expected to begin construction within the next two years. The Hywind and Kincardine test and demonstration scale floating wind projects are also now operational. Seagreen Alpha and Bravo, Moray West and Inch Cape are all consented commercial scale projects.

3.65 Within the coastal environment, Crown Estate Scotland is also responsible for managing moorings and some ports and harbours. Marine tourism in Scotland is projected to grow by 28% over the next seven years, progressing the sailing tourism economy which is already estimated to generate £130 million and supports 2700 jobs[256]. The Scottish Marine Recreation and Tourism Survey 2015 also identified that across all 23 activities covered by the survey, annual expenditure on marine recreation and tourism activities is estimated to be worth up to £3.7 billion to the Scottish economy.[257]

3.66 Tourism generated through cruises has seen the number of ships and passengers arriving in Scottish ports and harbours increasing. In 2018, a total of 825 cruise ships and 794,577 passengers arrived at Scottish ports across the country compared to a recorded 377 ships and 202,000 passengers in 2008[258]. Vessels and visitor number are also expected to increase, with 912 vessels anticipated in 2019, a projected increase of 10.5% on 2018, with passenger numbers expected to be up 15.8% at more than 920,000[259],

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[252] Scottish Aquaculture Innovation Centre, 2016, SAIC Operating Plan 2016-2019. Available at: https://www.scottishaquaculture.com/resources/

[253] Scotland's Aquaculture, undated. Available at: http://aquaculture.scotland.gov.uk/our_aquaculture/our_aquaculture.aspx

[254] Scottish Government, 2016, Aquaculture. Available at: https://www2.gov.scot/Topics/Statistics/Browse/Agriculture-Fisheries/TrendAquaculture

[255] Scottish Government, 2017, Energy – Renewable Energy. Available at: https://www2.gov.scot/Topics/Statistics/Browse/Business/TrenRenEnergy

[256] Crown Estate Scotland, 2018, Impact of Sailing Tourism https://www.crownestatescotland.com/what-we-do/coastal/case-study/impact-of-sailing-tourism

[257] Scottish Marine Recreation and Tourism Survey 2015. Available at: https://www2.gov.scot/Resource/0049/00497904.pdf

[258] Cruise Scotland, 2018, Another Record Cruise Season For Scottish Ports. Available at: https://www.cruisescotland.com/another-record-season

[259] Ibid.

Rural

3.67 The four rural estates are all tenanted for agriculture. It is estimated that 75% of the land area in Scotland is used for agriculture, including arable farming, hill farming, crofting, and lowland livestock and dairy farming[260]. 50% of Scotland's agriculture is dedicated to upland sheep farming and mixed sheep and beef cattle farming[261].

3.68 Scotland was previously widely covered by woodland, however heavy exploitation for timber, charcoal and tanbark, as well as land use changes, led to the decline of woodland and by 1990 woodland covered 5% of the country[262]. Large scale afforestation has increased woodland coverage across Scotland to 17% by the early 21st Century, providing more woodland benefits such as[263]:

- richer and more diverse habitats;
- enhanced landscapes;
- carbon sequestration and storage;
- timber, wood fuel and other woodland products;
- ecosystem services – such as clean water, mitigation of diffuse agricultural pollution, and reduced flood risk; and,
- secure jobs and a stronger economy – both rural and national.

Existing pressures

3.69 Existing pressures on material assets include climate change and land management practices.

3.70 Scotland's Climate Change Plan fully supports the expansion of offshore wind developments, which is a continually growing sector. In fact, by 2032, Scotland aims to have an electricity system comprised largely of renewable sources[264]. With Crown Estate Scotland responsible for leasing the seabed for renewable energy, the organisation will be vital in facilitating the renewable energy target for Scotland.

3.71 Climate is closely tied to agriculture, aquaculture and forestry and therefore changes to climatic conditions such as precipitation patterns and average surface and water temperatures may impact upon the success of these assets through fluctuations in yields and risk of new diseases and pests[265]. Specifically for aquaculture, changes to wave exposure may also impact upon success. Similarly, the changes in frequency and severity of storms, as well as the associated increased wave height also poses a risk to existing and planned offshore renewable energy infrastructure assets[266].

3.72 Land management practices also place pressure on material assets such as forestry and agriculture. Increasing development and land use change, depending on the total area required for new infrastructure and other ancillary development, may impact on land currently in these uses.

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[260] Scottish Natural Heritage, 2018. *Farming and crofting.* Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/farming-and-crofting

[261] Scottish Natural Heritage, 2018. *Hill farming*. https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/farming-and-crofting/types-farming/hill-farming

[262] Scottish Natural Heritage, 2018. *History of Scotland's woodlands*. Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/history-scotlands-woodlands

[263] Scottish Natural Heritage, 2018. *Woodland expansion across Scotland*. Available at: https://www.nature.scot/professional-advice/land-and-sea-management/managing-land/forests-and-woodlands/woodland-expansion-across-scotland

[264] Scottish Government 2018, Climate Change Plan: The Third Report on Proposals and Policies 2018-2032. Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/corporate-report/2018/02/scottish-governments-climate-change-plan-third-report-proposals-policies-2018/documents/00532096-pdf/00532096-pdf/govscot%3Adocument/00532096.pdf

[265] Scottish Government 2019, Appendix B: Environmental Baseline, Climate Ready Scotland 2019-2024. Available at: https://www2.gov.scot/Publications/2019/02/6294/362868

[266] Ibid

3.73 Coastal infrastructure to accommodate growing tourism numbers is under pressure as the demand for ports, marinas and berth continues to exceed supply.[267]

3.74 Other pressures specific to the Scottish aquaculture industry include invasive species, specifically crayfish which affects the pink Atlantic salmon. Sea lice present a key challenge to the continued growth of the Scottish salmon farming industry, particularly in marine environments. Wild salmon can potentially infect farmed stocks when the former return from the ocean. Sea lice from untreated farmed salmon can also increase the infestation levels on other farmed salmon, as well as on wild salmon stocks as they migrate past cages to the sea.[268] Furthermore the illegal exploitation of fish, particularly salmon continues to threaten the industry despite regulations that set out the ban on gill netting and the prohibition of the retention of salmon in coastal waters.

[267] VisitScotland, 2013, Tourism Development Framework for Scotland. Available at: https://www2.gov.scot/resource/0043/00432000.pdf

[268] Scottish Government, 2018, Review Of The Environmental Impacts Of Salmon Farming In Scotland: Executive Summary And Main Report. Available at: http://www.parliament.scot/S5_Environment/General%20Documents/20180125_SAMS_Review_of_Environmental_Impact_of_Salmon_Farming_-_Report.pdf

4 Strategic Environmental Assessment Findings

Introduction

4.1 This chapter of the Environmental Report sets out the assessment findings and the significant environmental effects of the Draft Corporate Plan and the alternatives to the actions considered. The findings are grouped as marine and coastal actions and rural actions, and findings are highlighted by SEA topic area.

Outline of the key components of the Draft Corporate Plan 2020-2023

4.2 As outlined in Chapter 2 of this Environmental Report, the Draft Corporate Plan 2020-2023 is framed around five strategic objectives and associated actions. All of the actions in the Draft Corporate Plan were screened for potential environmental impacts, and **Table 4.1** lists those actions which were screened in to the assessment.

Table 4.1 Summary of actions considered

Action number	Action
2	Invest to support blue economy expansion.
13	Implement a three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development.
14	Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy, with a focus on: • Ports and harbours; • Boat-based tourism; • Coastal development land.
15	Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration.
19	Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models.
20	Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial).
21	Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy.
23	Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.
25	Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).
26	Support innovation through co-investing with tenants / partners.
27	Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.

Environmental effects of the Draft Corporate Plan 2020-2023

4.3 The Draft Corporate Plan 2020-2023 will have mixed effects on the environment. This reflects the role of the Draft Corporate Plan to deliver excellent tenant service, enhancing revenue and capital value and, ultimately, creating long-term social, environmental and economic benefit. The following paragraphs set out the environmental effects arising from each of the main areas of activity. This is followed by consideration of the cumulative effects on specific environmental receptors.

4.4 The actions scoped in to the assessment have been grouped according to their relationship with the Crown Estate Scotland Assets.

4.5 The full assessment matrices and a summary table of all SEA scores are presented in **Appendix 5**. The matrices in Appendix 5 are grouped by the Strategic Objectives to which they relate. However the following summary of effects is described by asset type (i.e. marine and costal; and rural) to reflect the structure of the Environmental Baseline.

Marine and Coastal

Action 2, Action 13, Action 14, Action 15, Action 19, Action 20, Action 21, Action 23.

4.6 These actions reflect where investment could be focused to support marine and coastal development, encompassing development at a range of scales. For Action 2 this includes potential port and harbour development to support offshore wind, facilities for cruise liners, development of land at ports and harbours through to development to provide marine and coastal infrastructure for tourism. It is assumed that this will take place at a selected number of existing port and harbour locations. Related to this, Action 13 reflects the role of the Coastal Asset Strategy to provide a framework for managing all of the coastal assets including ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development. This action relates to the entire coastal estate and will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.

4.7 At a community level Action 14 supports coastal and marine based infrastructure which also delivers environmental and socio-economic benefits to rural communities. This would take place at selected coastal locations, principally involving the development or modernisation of existing ports and harbours. Action 15 supports local regeneration and sustainability, including support for projects that promote sustainable development and regeneration in coastal areas. This action will invite applications for local regeneration and sustainability based projects, for a relatively modest challenge fund. Action 21 relates to development activity and coastal regeneration and will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the programme of support associated with Action 15. Actions 19 and 20 reflect planning consent and delivery of development in rural areas to generate capital and revenue and contribute to achieving wider value from development. Action 23 is cross cutting and reflects the sustainable use of natural resources across the estate. This Action aims to consider Natural Capital in Crown Estate Scotland's management and investment decisions through developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of the Scottish Crown Estate and working with tenants and partners to embed the natural capital approach.

Environmental effects on marine and coastal assets

4.8 **No significant adverse** effects on **biodiversity, fauna and flora** were identified. The potential for a number of more minor adverse effects was identified, reflecting the potential for a range of coastal developments over an extensive area. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects**.

4.9 **No significant adverse** effects on **population and human health** were identified. Most Actions were predicted to result in minor positive effects, for example as a result of new employment opportunities, and options under Action 2 to invest to support the development of deep water facilities for cruise liners, infrastructure for boat based tourism and development of land associated with ports and harbours. **Significant positive effects** were identified for Action 23 as this action could result in healthier ecosystems and enhanced ecosystem services which should support people's quality of life and their health and well-being.

4.10 **No significant adverse** effects on **soils** were identified. The potential for more minor adverse effects was identified in relation to a number of Actions where they could involve the development of land. These tended to be balanced by potential minor positive effects which would result if such development resulted in the remediation of vacant or contaminated land. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects**.

4.11 **No significant adverse** effects on the **water environment** were identified. The potential for more minor adverse effects was identified in relation to a number of Actions where development of land could increase flood risk. These tended to be balanced by potential minor positive effects which would result if such development helped reduce flood risk. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects**.

4.12 **No significant adverse** effects on **air quality** were identified. The potential for more minor adverse effects was identified in relation to a small number of Actions which could involve the development of land, or in relation to marine vessels. **No significant positive** effects were identified, though Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in minor positive effects.

4.13 **No significant adverse** effects on **climate** were identified, with minor negative effects possible where Actions could lead to development. The potential for **significant positive effects** were identified in relation to a number of Actions which could facilitate renewable energy development (e.g. Action 2 which could support investment in port infrastructure for offshore wind) or, in the case of Action 23, consider Natural Capital in management and investment decisions which could prioritise carbon management across the Scottish Crown Estate. Action 23 could also have significant positive effects on climate adaptation.

4.14 **No significant adverse** effects on **landscape and geodiversity** were identified. The potential for more minor adverse effects was identified where Actions could lead to development in more sensitive coastal landscapes. **Significant positive effects** were identified in relation to Action 23 which promotes consideration of Natural Capital in decision-making (as part of an overall mixed effect).

4.15 **No significant adverse** effects on **cultural heritage and the historic environment** were identified. The potential for more minor effects was identified where new development or other management activity could, directly or indirectly, affect historic assets. **No significant positive** effects were identified. Minor positive effects were identified where development could help address vacant or derelict land or buildings, or other detracting influences on the quality of the built environment.

4.16 **No significant adverse** effects on **material assets** were identified. The potential for more minor adverse effects was identified where Actions could lead to development with significant energy or other requirements. **Significant positive effects** were identified for Action 23 which promotes the sustainable use of resources.

Rural

Action 19, Action 20, Action 21, Action 23, Action 25, Action 26, Action 27.

4.17 Actions 19 and 20 reflect planning consent and delivery of development in rural (and coastal) areas. This could include development to enhance the value of the rural and coastal estate and to achieve wider environmental and community benefit. Action 21 relates to joint development activity on the rural assets (and in coastal areas), and will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners in rural areas. As outlined above, Action 23 is cross cutting and reflects the sustainable use of natural resources, including on the rural estate, and aims to consider Natural Capital in decision-making. Action 25 relates to the Rural Assets Strategy which aims to enhance economic productivity and sustainability across rural properties and communities, including the wider benefits of land managed by Crown Estate Scotland. Action 26 reflects investment through potential development projects on the rural estate, and will invite applications for local innovative projects, focusing on sustainable resource use. Action 27 relates to local involvement in decisions related to land through evidence based estate plans for each of the rural estates.

Environmental effects on rural assets

4.18 **No significant adverse** effects on **biodiversity, fauna and flora** were identified. The potential for a number of more minor adverse effects was identified, reflecting the potential for a range of coastal developments over an extensive area. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects** for biodiversity, fauna and flora.

4.19 **No significant adverse** effects on **population and human health** were identified. Most Actions were predicted to result in minor positive effects, for example as a result of new employment opportunities. **Significant positive** effects were identified for Action 23 resulting from considering Natural Capital in decision-making, and Action 27 which supports local involvement in decision making.

4.20 **No significant adverse** effects on **soils** were identified. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects**. More minor positive effects were identified, for example where there is potential for development to address existing vacant or derelict rural land.

4.21 **No significant adverse** effects on the **water environment** were identified. Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in **significant positive effects** in terms water quality, quantity and current and future flood risk.

4.22 **No significant adverse** effects on **air quality** were identified. **No significant positive** effects were identified, though Action 23, which is designed to allow consideration of Natural Capital in management and investment decisions across the activities of Crown Estate Scotland and its partners, has potential to result in minor positive effects. Minor negative effects relate to potential effects arising from travel movements from development.

4.23 **No significant adverse** effects on **climate** were identified. The potential for **significant positive effects** was identified in relation to Action 23 reflecting the potential for considering Natural Capital in decision-making which could prioritise carbon management across the Scottish Crown Estate. Action 23 could also have significant positive effects on climate adaptation. As for air quality, minor negative effects relate to potential effects arising from emissions from travel movements associated with development.

4.24 **No significant adverse** effects on **landscape and geodiversity** were identified. The potential for more minor adverse effects was identified where Actions could lead to development in more sensitive coastal landscapes. **Significant positive effects** were identified in relation to Action 23 which supports the consideration of Natural Capital in decision-making across the work of Crown Estate Scotland and its partners and which could result in enhancement to rural and upland landscapes.

4.25 **No significant adverse** effects on **cultural heritage and the historic environment** were identified. **No significant positive** effects were identified. Minor positive effects were identified

where development or other management could help address vacant or derelict land or buildings, or other detracting influences on the quality of the built environment. Minor negative effects could arise from the impacts of development on designated and undesignated assets.

4.26 **No significant adverse** effects on **material assets** were identified. **Significant positive effects** were identified for Actions which could facilitate the development of renewable energy (e.g. Action 26) or which promote the sustainable use of resources (notably Action 23).

Consideration of alternatives

4.27 There are two types of alternative included within the SEA. Firstly, we consider alternatives considered to actions presented as the preferred option in the Draft Corporate Plan. Secondly, we consider alternatives that are a matter of emphasis to be reflected in future actions or lower tier plans. The latter types of alternatives considered for the actions include focusing activity on different types of development, or different levels of community involvement in decision making.

Table 4.2 Alternatives considered for which preferred options have been identified

Preferred option	Comparative effects of alternatives		Reason for selection
Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development.	Alternative 1: Coastal Asset Strategy developed and implemented as a framework for managing coastal assets. No significant environmental effects are identified in relation to this alternative. Minor mixed effects are identified in relation to biodiversity, flora and fauna and, minor negative effects are identified in relation to landscape and geodiversity reflecting the potential for development in sensitive coastal locations. Potential minor positive effects are identified across the SEA topics of population and human health, soil, water, climatic factors, cultural heritage and the historic environment and material assets.	Alternative 2: Coastal assets are managed without the benefit of a comprehensive strategy. Although broadly similar to the effects of Alternative 1, overall this alternative resulted in fewer minor positive effects in relation to population and human health, soil, water, climatic factors and cultural heritage and the historic environment. This reflects the absence of the strategy and the role it would play in minimising or avoiding adverse effects on these SEA topics.	**Alternative 1 is the preferred option** because it has greater positive effects overall, reflecting the positive role of the Coastal Asset Strategy across the SEA topics.
Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration.	Alternative 1: Involvement of communities and partners in identifying potential projects and developing proposals. No significant environmental effects are identified and no negative environmental effects. This alternative would result in potential minor positive effects across all of the SEA topics with the exception of air. This reflects the impact of involving communities and partners in identifying projects and developing proposals, and reflecting local issues and priorities within the decision making process.	Alternative 2: Crown Estate Scotland makes unilateral decisions without inviting applications for funding and without the involvement of communities. Although broadly similar in effect to Alternative 1, this alternative resulted in fewer minor positive effects in relation to biodiversity, population and human health, soil, water, air, climatic factors, cultural heritage and the historic environment, landscape and geodiversity and material assets, reflecting the absence of the positive role of the involvement of communities and partners in bringing wider benefits in the long term.	**Alternative 1 is the preferred option** because it has greater positive effects overall, reflecting the positive role of involving communities and partners in identifying projects and developing proposals, and reflecting local issues and priorities within the decision making process.
Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models.	Alternative 1: Crown Estate Scotland apply/receive planning consent. No significant positive or negative effects are identified. Potential minor positive but uncertain effects are identified across the SEA topics, except in relation to air and material assets, where negligible impacts are identified. This reflects	Alternative 2: Crown Estate Scotland sell land with no planning consent. Although no significant environmental effects are identified, potential minor negative but uncertain effects are identified across the SEA topics. This reflects the potential for the design of development to be taken forward by a developer other than Crown Estate Scotland, who would not be required to reflect Crown Estate Scotland's values.	**Alternative 1 is the preferred option** because it has the potential to deliver minor positive effects across a number of SEA topics, while Alternative 2 does not ensure Crown Estate Scotland values will be

Preferred option	Comparative effects of alternatives		Reason for selection
	the additional benefits which could arise from development proposals which reflect Crown Estate Scotland's values in identifying development opportunities.		reflected in the design of development projects.
Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial).	Alternative 1: Crown Estate Scotland apply/receive planning consent and implement development projects across the Crown Estate Scotland assets, in both urban and rural areas. No significant positive or negative effects are identified. Potential minor positive effects are identified across the SEA topics of biodiversity, flora and fauna, population and human health, climatic factors, cultural heritage and the historic environment, and landscape and geodiversity. This reflects the positive role of Crown Estate Scotland's values in ensuring wider environmental impacts are considered in developing proposals. Potential minor negative effects are identified in relation to air due to the nature of the rural and coastal estates and that sustainable transport options will be less likely to be available to support development projects.	Alternative 2: CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate. No significant positive or negative effects are identified. Potential minor mixed effects are identified in relation to biodiversity, flora and fauna, flood risk, vacant and derelict land, climatic factors, cultural heritage and the historic environment, and landscape and geodiversity. This reflects the positive role of Crown Estate Scotland's values in shaping the design of projects , but also the uncertainty of design changes being made in the delivery by a third party developer, which do not deliver the potential benefits. Minor negative but uncertain effects are identified in relation to population and human health, valuable soil resources, water quality, air quality, geological sites, and material assets. This reflects direct impacts of development on soil, water, air and material assets and the potential for a third party developer to alter the design of the developments which may not align with Crown Estate Scotland values.	**Alternative 1 is the preferred option** because it has the potential to deliver minor positive effects across a number of SEA topics, while Alternative 2 does not ensure Crown Estate Scotland values will be reflected in the delivery of development projects.
Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy.	Alternative 1: Involvement of communities and partners in further developing and implementing projects. Potential mixed effects are identified across the SEA topics of biodiversity, flora and fauna, population and human health, water, climatic factors, cultural heritage and historic environment, and landscape and geodiversity. This reflects potential local impacts from development on important local resources, but also opportunities for enhancement of these resources. No significant negative effects are identified, but significant positive effects are identified in relation to population and human health and climatic factors (as part of overall mixed effects) where communities inform local improvements reflecting local need, or support	Alternative 2: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners Although no significant environmental effects are identified, fewer positive effects were identified in relation to population and human health and climatic factors. This reflects the absence of the positive role of the involvement of communities and partners in bringing wider benefits in the long term.	**Alternative 1 is the preferred option** because it has greater positive effects overall, reflecting the positive role of the involvement of communities and partners in bringing wider benefits in the long term.

Preferred option	Comparative effects of alternatives		Reason for selection
	local renewable energy development. Minor negative effects are identified in relation to potential development impacting on sensitive locations in relation to soil, air, water, landscape and geodiversity and material assets, reflecting the potential for development to result in adverse effects on these assets.		
Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.	Alternative 1: Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate. Significant positive environmental effects are identified across several SEA topic areas including biodiversity, flora and fauna, soil, water, climatic factors, and material assets. This reflect the strongly positive effect of promoting sustainable use of natural resources and raising awareness of the approach to tenants and other partners. Mixed effects (significant positive/minor negative) are identified in relation to landscape and geodiversity, as some actions to support a Natural Capital approach could result in negative impacts on the landscape and visual characteristics of an area. Minor negative effects are identified for cultural heritage and the historic environment where actions which consider Natural Capital could impact on historic sites or their setting.	Alternative 2: Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners. Although the effects of this alternative are broadly aligned with the findings for Alternative 1, no significant environmental effects were identified, resulting in overall fewer positive effects in relation to biodiversity, flora and fauna, protecting soil, water, climatic factors, landscape and geodiversity and material assets. The lower level of positive effects may arise from the lack of involvement and awareness on the part of tenants and other partners hindering practical implementation.	**Alternative 1 is the preferred option** because it has greater positive effects overall, reflecting the impact of involving tenants and other partners of the Natural Capital approach.
Action 26: Support innovation through co-investing with tenants / partners.	Alternative 1: Involvement of communities and partners in identifying potential projects and developing proposals. There are a number of minor mixed effects arising from this alternative, reflecting potential minor adverse effects arising from development of projects, but recognising that the projects could also bring environmental benefits. These mixed effects are identified for biodiversity, flora and fauna, population and human health and landscape and geodiversity. Minor negative effects are identified in relation to air and cultural heritage and the historic environment reflecting potential adverse effects	Alternative 2: Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners. Although no significant environmental effects were identified, fewer positive effects were identified in relation to biodiversity, fauna and flora, population and human health, climatic factors and material assets. No minor negative effects are identified in relation to air, unlike those identified from Alternative 1 which identified that impacts may arise from development which results to emissions to air, such as burning biogas.	**Alternative 1 is the preferred option** because it has the potential to deliver greater positive effects overall than Alternative 2, by bringing environmental benefits from the involvement of communities and partners in identifying potential projects and

Preferred option	Comparative effects of alternatives		Reason for selection
	on the quality of the built environment arising from development. Minor positive effects are identified in relation to soil, water, and climatic factors resulting from projects which support soil management, water quality and low carbon development. A significant positive effect is identified in relation to material assets reflecting the implementation of projects which result in the more sustainable use of natural resources across the estate.		developing proposals.
Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.	Alternative 1: Crown Estate Scotland progresses local involvement of communities and local partners in decisions relating to land. Significant positive effects are identified in relation to population and human health, reflecting the opportunities for local involvement to inform projects and future development which deliver significant benefits to local communities. Minor positive effects are identified for biodiversity, flora and fauna, soil, water, climatic factors, cultural heritage and the historic environment and material assets. These reflect the potential role of local involvement in identifying important local issues which relate to these topic areas. No negative effects are identified.	Alternative 2: Crown Estate Scotland does not progress local involvement of communities and local partners in decisions relating to land. Although no significant environmental effects were identified, fewer positive effects were identified in relation to population and human health, vacant and derelict land, climatic factors, cultural heritage and the historic environment, landscape and geodiversity, and material assets. This reflects the lack of local involvement in identifying locally specific issues relevant to these topics.	**Alternative 1 is the preferred option** because it has the potential to deliver greater positive effects overall than Alternative 2, by bringing environmental benefits from the involvement of tenants, communities, local councils and development trusts and other key stakeholders in decisions relating to land through estate plans.

Table 4.3 Alternatives considered for which a preferred alternative is not defined in the Draft Corporate Plan

Action	Alternative	Comparative effects of alternative/s
Action 2: Invest to support blue economy expansion	Port infrastructure supporting offshore wind	All four alternatives have potential minor adverse effects on biodiversity, flora and fauna as a result of potential for development to take place in sensitive locations or to impact on the fragmentation of ecological habitats. Overall all four alternatives could result in positive effects on population and human health as a result of improved facilities and economic opportunities. In relation to soil, Alternative 1 port and harbour infrastructure is likely to be located in areas of existing development with negligible impacts on soil. Alternative 2 could result in the requirement for dredging with potential adverse impacts on coastal sediments, and development of Alternatives 3 and 4 infrastructure could be located in areas with more sensitive coastal soils, with potential permanent negative effects. Minor positive effects are also likely for Alternatives 2, 3 and 4 as new development may involve the redevelopment of vacant and derelict land and buildings. Adverse impacts on water quality may arise from Alternatives 3 and 4 due to the activities associated with the proposed types of development. Minor adverse localised impacts on air are expected from the development of deep water facilities. Impacts on climate change include negative effects arising from greenhouse gas emissions from vessels for Alternatives 2, 3, and 4. Alternative 1 brings significant positive effects through the secondary effects of support for marine renewable energy development. Minor negative effects could arise from all alternatives on cultural heritage and the historic environment, and could include impacts on unknown historic assets and impacts on the setting of built environment assets. Minor positive effects may also occur for all alternatives as they should make a positive contribution to the quality of the built environment. Similar to the impacts on cultural heritage, all four alternatives could result in minor adverse landscape impacts (as part of a mixed effect for Alternative 2). Minor positive effects are identified for Alternatives 1 and 4 in relation to enhancement of material assets through the improvement of infrastructure in coastal locations. **Effects from investment in all four alternatives** Investment in all types of infrastructure would result in a potential wider geographic spread of development due to the range of locations which the four alternative development types could take place in. This may result in more widespread impacts on biodiversity, reflecting the greater potential for development to impact on designated areas, and more widespread benefits across coastal communities.
	Deep water facilities for cruise lines	
	Infrastructure supporting boat based tourism	
	Development land associated with ports and harbours	

Action	Alternative	Comparative effects of alternative/s
Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy, with a focus on: • Ports and harbours; • Boat-based tourism; • Coastal development land.	Alternative 1: Focus on ports and harbours.	No significant positive or negative effects are identified in relation to any of the alternatives for the SEA objectives. In relation to biodiversity, flora and fauna minor negative effects could arise. The effects from Alternative 1, ports and harbours arise from potential impacts of development and operational activities on designated and sensitive assets. Impacts from Alternative 2 could occur from increased recreational activity causing disturbance to species, and development associated with Alternative 3 could result in mixed effects from direct impacts on biodiversity but also opportunities for environmental enhancement as part of any development proposals. Overall minor mixed effects are identified in relation to population and human health across all three alternatives, reflecting the enhanced opportunities brought about by additional employment, and improved environments and facilities, and also the potential negative effects from construction and operation of these facilities and impacts on quality of life. For Alternatives 1 and 3, development could result in remediation of vacant and derelict land but could also result in loss of land to development.
	Alternative 2:Focus on boat based tourism	In relation to water, Alternatives 1 and 3 could result in mixed effects due to potential increased impacts on water quality and flood risk, but also the opportunities to reduce flood risk from additional measures provided by the development. All three alternatives have potential minor negative effects in relation to air quality arising from increased vehicle movements, including marine vessels, associated with the development. Similarly in relation to climatic factors development has potential to negatively impact on greenhouse gas emissions, but Alternatives 1 and 3 have the potential for development to contribute positively to climate change adaptation. All three alternatives have the potential for minor negative effects on cultural heritage and the historic environment through marine and land based development impacting directly and on the setting of heritage assets. Development associated with Alternatives 1 and 3 could also contribute to the quality of the built environment by remediating derelict and contaminated land. Alternative 1 has potential minor negative effects due to potential impacts of development on designated landscapes. Alternatives 2 and 3 have potential mixed effects in relation to landscape as development could result in impacts in sensitive landscape areas, but alignment with Crown Estate Scotland's Value Project could influence the location of development. Alternatives 1 and 2 have potential mixed effects on material assets, resulting from enhancement of built assets, to potential increased consumption of finite resources from construction and operation. Alternative 3 is likely to have minor positive effects as a result of potential support for development which may facilitate other material assets such as renewable energy. **Effects from investment in all three alternatives** As for Alternative 2, all three types of development would result in a potential wider geographic spread of development due to the range of locations which the alternative development types could take place in. This may result in more widespread impacts on across the SEA topic areas with minor negative effects on biodiversity, flora and fauna, air and climate, cultural heritage, landscape and material assets, but also more widespread positive effects.
	Alternative 3: Focus on coastal development land	

Action	Alternative	Comparative effects of alternative/s
Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).	Alternative 1: Rural Assets Strategy with a stronger economic focus	This action is largely positive for both alternatives. Alternative 1 has largely minor positive or neutral environmental effects. Minor negative effects are identified for biodiversity, flora and fauna as a result of direct effects of development to support economic activity. Minor positive effects are identified in relation to population and human health, reflecting investment in projects which provide long term benefits to rural residents and communities, however there could also be short and long term negative effects on communities arising from the impacts of development and operation. The impacts of development could result in soil sealing with potential minor negative effects, however development could also support the remediation and use of vacant and derelict land and buildings with minor positive effects. Minor positive effects are identified in relation to climatic factors and material assets, reflecting the investment in rural infrastructure and property.
	Alternative 2: Rural Assets Strategy with a stronger environmental focus	Similar to Alternative 1, Alternative 2 has broadly positive environmental effects, including a number of significant positive environmental effects. These significant positive effects are identified in relation to biodiversity, flora and fauna, population and human health, soil and material assets. Greater reflection of a Natural Capital approach in investment decisions, leading to more significant and longer term benefits for biodiversity, such as woodland creation. This would also bring environmental benefits which support population and human health. A stronger environmental focus also contributes to both built and natural environment material assets including improvement of renewable energy infrastructure and management of the natural environment assets to achieve wider benefits such as biodiversity or flood management.

Cumulative, secondary and synergistic effects

4.28 This section of the Environmental Report explores the potential cumulative, secondary and synergistic effects which may arise from the actions in the Draft Corporate Plan 2020-2023. It explores potential effects in relation to each of the SEA topics and identifies key issues arising for each topic.

Biodiversity, flora and fauna

4.29 Potential **minor cumulative adverse effects** are identified in relation to the marine and coastal assets reflecting the impacts of marine and coastal development over an extensive area. Most, though potentially not all, development is likely to be within or adjacent to existing ports and harbours. In combination with existing pressures in some sensitive coastal locations, there could be potential for locally greater effects on coastal and associated marine habitats. This reflects the possible role of Actions 2, 13, 14, 15, 20 and 21 in reinforcing the potential for development activity within certain areas. Similarly in the rural estate, potential **minor cumulative adverse effects** on biodiversity, flora and fauna are identified from development projects being identified and taken forward.

4.30 However recognising that development will be in line with the national and local planning framework, and recognising the role of Action 23 in ensuring sustainable use of natural resources, no significant negative cumulative effects are identified. Considering Natural Capital in decision making across the Scottish Crown Estate could result in **minor positive cumulative effects** on biodiversity, particularly when combined with the actions of government agencies, private land owners and NGOs.

Population and human health

4.31 A number of actions (Actions 2, 13, 14, 15, 20 and 21) could lead to new development, raising the potential for cumulative impacts on coastal communities in particular, from construction impacts associated with a range of developments. In practice, these are likely to be spread across a number of locations, will not all be progressed at the same time and will be considered as part of the normal consenting process. Significant cumulative effects are therefore unlikely.

4.32 The development flowing from Actions 2, 13, 14, 15, 20 and 21, together with actions across the rural estate (25, 26 and 27) could create new opportunities for employment and training associated with the blue economy and the sustainable management of land. Together these actions will bring employment benefits and build capacity within growth sectors representing a **minor positive cumulative effect** on population and human health.

4.33 Actions that promote a partnership approach to the identification and implementation of projects (Actions 14, 21, 26 and 27) are likely to help build social capital and community wellbeing across the Scottish Crown Estate, representing a **minor positive cumulative effect** on population and human health.

4.34 A number of actions (Actions 2, 13, 14, 15, 20 and 21) have the potential to help address vacant or derelict land and buildings, particularly in ports and harbours. This could result in **minor positive cumulative** effects for coastal communities.

Soil

4.35 A number of actions (Actions 2, 13, 14, 15, 20 and 21) could lead to new development, raising the potential for cumulative impacts on soils. Most development is likely to be within or close to existing settlement and will be subject to national and local planning policies. Relatively little development is likely to be in areas with particularly sensitive soils (e.g. machair). Crown Estate Scotland's commitment to sustainable management of soils (Action 25) should also help ensure that **significant cumulative adverse effects are avoided** and, across the rural estate in particular, actions deliver positive cumulative effects. A number of actions (Actions 2, 13, 14, 15, 20 and 21) have the potential to help address vacant or derelict land and buildings, particularly in ports and harbours. This could result in **minor positive cumulative effects** for damaged or contaminated soils in these locations.

Water

4.36 While a number of Actions have potential for minor adverse effects on the water environment, adherence to national and local policy and the commitment sustainable management of water (Action 23) means that significant adverse cumulative effects are unlikely. Across the rural estate in particular, Action 23 is likely to result in **significant positive cumulative effects**.

4.37 Actions involving development have the potential to increase flood risk, including placing additional people and property at risk of flooding. Adherence to national and local policy will help ensure that current and potential flood risk is taken into account so adverse cumulative effects are unlikely. Conversely, redevelopment of existing sites, particularly in coastal areas, offers the potential to address current and future flood risk, potentially delivering **significant positive cumulative effects**.

Air

4.38 A number of actions (Actions 2, 13, 14, 15, 20 and 21) could lead to new development with potential for air quality effects depending on the type of development, likely emissions from industrial processes, road transport and vessels, and location within or close to Air Quality Management Areas. In such areas there is potential for cumulative effects with emissions associated with existing activity. Adherence to national and local policies, and the good air quality across most of the Scottish Crown Estate means there are likely to be relatively few locations where such impacts are likely. The potential for **minor adverse cumulative effects** is therefore identified.

Climatic factors

4.39 Several Actions (2, 25, 26) offer potential to support renewable energy development, supporting national policies to avoid and reduce greenhouse gas emissions. Actions supporting development more generally (2, 13, 14, 15, 20 and 21) have the potential to increase energy efficiency and the deployment of micro-renewables. Action 23, which should lead to consideration of carbon management across the rural estate in particular, could lead to tree planting, sustainable management of soils including peat. Together, these Actions could lead to **significant positive effects** on greenhouse gas emission reductions.

4.40 Actions supporting development generally (2, 13, 14, 15, 20 and 21) have the potential to support climate adaptation. By ensuring that Natural Capital is considered in decision making, Action 23 should lead to more resilient ecosystems, supporting sustainable flood management, conservation of soils and habitat enhancement in the face of current and projected climate change. Together, these Actions could lead to **significant positive effects** on climate change adaptation.

Cultural heritage and the historic environment

4.41 A number of actions (Actions 2, 13, 14, 15, 20 and 21) could lead to new development. While alignment with national and local policies should help ensure that cumulative effects on designated historic assets and their settings are avoided or minimised, there is potential for wider effects on undesignated and currently unknown assets. This is common to most forms of development and is judged to be a **minor adverse cumulative** effect overall.

4.42 New development, particularly the redevelopment of derelict or vacant buildings and land offers the potential to bring historic buildings into positive use, or to improve the setting of historic assets. Combined with other initiatives to support urban and rural regeneration, this is considered to be a **minor positive cumulative** effect overall.

Landscape and geodiversity

4.43 A number of actions (Actions 2, 13, 14, 15, 20 and 21) could lead to new development which could lead to landscape and visual effects, particularly in more sensitive coastal and rural locations. Adherence to national and local policies should ensure that impacts on nationally important landscapes are avoided and that elsewhere such effects are minimised. There is potential for cumulative landscape and visual effects where development takes place within or

adjacent to existing settlement. Overall the potential for **adverse cumulative effects** is considered to be of **minor significance**.

Material assets

4.44 While a number of Actions are likely to increase demand for material assets during construction or operation, adverse cumulative effects are unlikely given opportunities to increase resource efficiency, opportunities for renewable energy generation and work to increase sustainable resource management, across the rural estate in particular. Overall, there are likely to be **minor positive cumulative effects** on material assets.

5 Mitigation and Enhancement

Introduction

5.1 The 2005 Act states requires that '*the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme*' are outlined within the Environmental Report. These measures are often referred to as mitigation measures. The following text summarises the mitigation measures identified from the assessment.

5.2 This assessment has identified no Actions judged likely to result in significant adverse effects. This section therefore focuses on ways in which minor adverse effects could be reduced or avoided, or where there is potential to enhance benefits.

5.3 Crown Estate Scotland is developing its decision making processes to ensure the requirements of the 2019 Act are met and these include ensuring that environmental considerations are taken into account. A key mechanism for this will be the implementation of the Crown Estate Scotland's Value Project which will ensure that consideration of the different types of value identified in the Act are embedded across the organisation's decision making processes. Mitigation and enhancement measure will inform development and implementation of the Value Project as well as setting out issues that should be considered in other strategies following on from the Corporate Plan.

Mitigation

5.4 The following actions are required to address minor adverse effects, or avoid the potential for such effects to occur.

All SEA topic areas

5.5 Crown Estate Scotland should confirm its commitment to only progress projects that conform to the local development plan and have the support of statutory consultees. This relates particularly to Actions that involve the development or change in use of land.

Biodiversity, flora and fauna

5.6 Processes guiding the identification, evaluation and selection of development projects should explicitly require consideration of adverse effects on designated and undesignated habitats and species.

5.7 Crown Estate Scotland should record where potential development areas or projects are within or in close proximity to designated biodiversity sites, identifying how the conservation interest should be reflected in management and maintenance activity, as appropriate.

5.8 Crown Estate Scotland should ensure sensitive and designated areas across the four estates are taken into account when informing decisions concerning re-investment and infrastructure development.

5.9 Evidence based estate plans should highlight sensitive and designated areas and ensure this information is reflected in estate management.

Population and human health

5.10 Processes guiding the identification, evaluation and selection of development projects should explicitly require consideration of adverse effects on population, human health and local communities. This includes, for example, the impacts of construction activity, or the impacts of

large scale port developments on neighbours, together with indirect effects such as noise, air quality or traffic.

Soils

5.11 Processes guiding the identification, evaluation and selection of development and other relevant investment decisions should explicitly require consideration of adverse effects on sensitive soils, including those at risk of coastal erosion or supporting sensitive habitats.

5.12 Investment opportunities should consider potential effects on soil when identifying infrastructure and development projects. Where possible, areas of sensitive and valuable soils should be identified and avoided.

5.13 Where possible, Crown Estate Scotland should ensure consideration of investment opportunities where vacant and derelict land could be reused.

Water

5.14 The evaluation of proposed development or investment decisions should consider the possibility of risks to water quality and flood risk and take sensitive aquatic environments (e.g. designated bathing waters) into consideration and avoid these areas wherever possible.

5.15 Crown Estate Scotland should ensure that development and investment decisions address and minimise existing and projected climate risks, particularly those associated with projected increases in winter rainfall, extreme weather events and coastal flooding.

Air

5.16 The evaluation of proposed development or investment decisions should take account of air quality issues and the likelihood of unacceptable levels of emissions, dust or odour. This is particularly relevant close to existing Air Quality Management Area or other areas with poor air quality.

Climatic factors

5.17 The evaluation of proposed development or investment decisions should consider the role of the development or project:

- in supporting adaptation of climate change, including consideration of future flood risk and role of natural flood management measures;
- in supporting low or net zero carbon technologies, and in accessible locations; and,
- in supporting high energy efficiency standards or the use of low carbon energy sources.

5.18 When identifying homes which may require energy efficiency measures, an assessment should be carried out and subsequent investment focused on the most inefficient properties. Where possible, energy efficiency measures which would extend beyond the minimum required standard should be pursued.

5.19 The site selection process for any deep water cruise development should consider locating in areas with other forms of transport links, such as rail and coach. This would enable more environmentally sustainable travel for cruise liner passengers and distribution networks for offshore industries such as bulk cargo.

Cultural heritage and the historic environment

5.20 The evaluation of proposed development or investment decisions should take account of potential impacts on designated historic environment assets, the importance of taking account of undesignated historic assets, the likelihood of previously unknown assets and the potential to improve the setting of existing assets.

5.21 Crown Estate Scotland should record where assets are designated as a result of their historic importance or lie in close proximity to designated cultural heritage sites, identifying how the conservation interest should be reflected in management and maintenance activity, as appropriate.

5.22 Crown Estate Scotland should take sensitive and designated cultural heritage assets across the four rural estates into account when informing decisions concerning re-investment and infrastructure development

5.23 Evidence based estate plans should record and highlight assets which may be vulnerable to development or land management activity.

5.24 Implementation of a Natural Capital approach should include specific reference to the importance of cultural capital assets and the benefits derived from them.

Landscape and geodiversity

5.25 The evaluation of proposed development or investment decisions should ensure that potential landscape and visual effects particularly in sensitive and designated landscapes, and potential for impacts on geological sites of national, regional or local importance are taken into account.

5.26 Crown Estate Scotland should record where assets lie within or in close proximity to designated landscapes identifying how this should be reflected in management and maintenance activity, as appropriate. For National Scenic Areas this should refer to defined Special Qualities.

Material assets

5.27 The evaluation of proposed development or investment decisions should take ensure that impacts on existing material assets including water supply, energy and transport are avoided, and positive effects in terms of energy efficiency and low carbon development are maximised.

Enhancement

5.28 The following actions are intended to identify ways in which Crown Estate Scotland investment decisions, lower tier strategies and management activities could support environmental enhancements.

Biodiversity, flora and fauna

5.29 Project proposals and investment options should explore opportunities to enhance biodiversity networks, including habitat creation and net gain, and measures to increase awareness and understanding should also be identified where appropriate.

5.30 There is an opportunity to demonstrate how the Natural Capital approach will embed consideration of biodiversity effects (including scope for enhancement or net gain) in asset management and investment decisions.

Population and human heath

5.31 Development sites, projects or investment options should aim to address environmental problems relevant to communities.

5.32 The development of port infrastructure to support renewable energy development could also support wider port investment such as improvements to existing sea defences, improving coastal access or open space, address issues such as dereliction or vacant land with potential benefits to the health and living environments of people and communities.

5.33 Local residents and communities could be involved in the decision making processes to further improve and contribute to community quality of life.

5.34 There is an opportunity to demonstrate how the Natural Capital approach could embed consideration of benefits for people's quality of life, health and well-being in asset management and investment decisions.

Soil

5.35 Where appropriate, projects should explore opportunities to re-use or redevelop vacant and derelict land, or support sustainable management of high carbon soils.

Water environment

5.36 Investment decisions could ensure port development explores opportunities to reduce coastal flood risk.

5.37 Investment decisions could ensure consideration of opportunities to improve water quality or supply.

5.38 Opportunities to encourage decisions that address and minimise climate risks, particularly those associated with projected increases in winter rainfall, extreme weather events and sea level rise should be explored

5.39 Investment and management decisions concerning land should include consideration of climate risks and the extent to which it could reduce or avoid risk in the future.

5.40 There is an opportunity to demonstrate how the Natural Capital approach will embed consideration of water quality, quantity and flooding issues in asset management and investment decisions.

Air quality

5.41 No enhancement identified.

Climatic factors

5.42 Investment and development decisions should ensure that opportunities to ensure assets are resilient and capable of adapting to climate change. Where opportunities arise, investment could explore potential to deliver benefits such as flood defence across a wider area.

Cultural heritage and the historic environment

5.43 Opportunities which contribute to the quality of the wider built environment, including conservation and enhancement of the historic environment, or measures to increase understanding and awareness of it should be explored.

5.44 The evaluation of project proposals and investment options should explore opportunities to conserve and enhance the historic environment.

Landscape and geodiversity

5.45 Opportunities which seek to protect and enhance important landscapes and seascapes or support measures to increase understanding and awareness of landscape and geodiversity should be explored.

5.46 There is an opportunity to demonstrate how considering Natural Capital could embed issues of landscape character and quality into investment and management decisions, judging potential change against key characteristics and, in National Parks and National Scenic Areas, Special Qualities.

Material assets

5.47 Investment and development decisions should explore opportunities to enhance material assets, for example through realising potential for renewable energy development.

5.48 Considering Natural Capital in decision making could demonstrate the cultural and economic benefits provided by the historic environment.

5.49 There is an opportunity to demonstrate how considering Natural Capital could embed consideration of opportunities to enhance material assets in management and investment decisions.

6 Monitoring

6.1 Monitoring significant environmental effects is a statutory requirement within the 2005 Act. Monitoring seeks to ensure that plans avoid generating unforeseen adverse environmental effects, and enables the responsible authority to undertake appropriate remedial action.

6.2 Crown Estate Scotland is currently developing the Value Project and it is anticipated that indicators associated with monitoring for this this could potentially be used to embed the SEA monitoring into wider monitoring of Crown Estate Scotland Activities. This will be further considered as the Value Project is finalised.

6.3 Proposals for monitoring will be addressed and further outlined within the post-adoption statement at the end of the SEA process.

7 Next Steps

7.1 The consultation on the Draft Corporate Plan will run for a ten week period from 31st August to 25th November 2019. Comments on the Draft Corporate Plan and the Environmental Report can be submitted via the Scottish Government Citizen Space website: https://consult.gov.scot/crown-estate-strategy-unit/2020-23-corporate-plan . Request for hard copies of the Environmental Report can be made to corporate@crownestatescotland.com

7.2 Consultation questions on the SEA Environmental Report are as follows:

1) (a) Do you have any comments on the environmental baseline information referred to in the Environmental Report?

   (b) Are you aware of further information that could be used to inform the assessment findings?

2) (a) Do you agree with the assessment findings?

   (b) Are there other environmental effects arising from the Draft Corporate Plan?

3) What are your views on the alternatives considered?

4) What are the most significant environmental effects which should be taken into account as the Draft Corporate Plan is finalised?

5) How can the Draft Corporate Plan be enhanced to maximise positive environmental effects?

6) What do you think of the proposed approach to mitigation and monitoring proposed in chapters 5 and 6?

7.3 Following the consultation period, the consultation responses will be analysed and Crown Estate Scotland will finalise and publish the Corporate Plan 2020-2023. After the Corporate Plan 2020-2023 is adopted a Post Adoption Statement will be produced. This Statement will set out how the SEA and the views received in the consultation processes have been taken into account.

LUC

August 2019

Appendix 1

Review of relevant plans, programmes, strategies and environmental protection objectives

General

Source	Key objectives	Implications / comments
GENERAL		
International		
Aarhus Convention (1998)	To develop a number of rights of the public with regard to the environment. Local authorities should provide for: • The right of everyone to receive environmental information • The right to participate from an early stage in environmental decision making • The right to challenge in a court of law public decisions that have been made without respecting the two rights above or environmental law in general	Ensure that the public are involved and consulted at all relevant stages of SEA production.
Johannesburg Declaration on Sustainable Development (2002)	To make a significant commitment to building a humane, equitable and caring global society aware of the need for human dignity for all.	The SEA should reflect sustainability objectives to **promote the principles of sustainable development**
European		
EU Public Participation Directive Directive 2003/35/EC on providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC	Provides a legal framework for community involvement by requiring public participation in decision-making and regulation, including through access to information and consultation.	Ensure that the public are involved and consulted at all relevant stages of drawing up certain plans and programmes relating to the environment.
SEA Directive 2001 Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment	The key objective of the SEA Directive is to provide for a high level of protection of the environment and contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.	**Requirements of the SEA Directive must be met in Strategic Environmental Assessments.**
National (Legislation)		
Town and Country Planning (Scotland) Act 1997 (as	The Town and Country Planning (Scotland) Act governs the use and development	**The SEA should be**

amended)	of land within Scotland. The 1997 Act forms the basis of the Scottish planning system. It sets out the roles of Scottish Ministers and designates local authorities as 'planning authorities' with a responsibility for producing local development plans and handling most aspects of development management and enforcement. All planning applications in Scotland are required to be determined against the Town and Country Planning (Scotland) Ac 1997.	**mindful of the requirements set out in the 1997 Act.**
Planning etc. (Scotland) Act 2006	The Planning etc. (Scotland) Act 2006 formed a central part of the reform of the Scottish planning system. One of its key effects was the creation of Strategic Development Planning Authorities, which comprise several local planning authorities and are charged with producing long-term development plans.	**The SEA should be mindful of the requirements set out in the Planning etc. (Scotland) Act 2006**
Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008 (as amended)	Sets out provisions for granting planning permission in accordance with the Town and Country Planning (Scotland) Act 1997.	**The SEA should be mindful of the requirements of the Town and Country Planning (Development Management Procedure) Scotland Regulations**
Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011	Sets out criteria for determining whether an Environmental Impact Assessment would be required for developments.	The SEA should reflect the objectives **to minimise the potential environmental impacts of development**
Scottish Crown Estate Act 2019	An Act of the Scottish Parliament to rename Crown Estate Scotland (Interim Management); as Crown Estate Scotland, and to make provision for the management of the Scottish Crown Estate.	The SEA should be mindful of the requirements of the Scottish Crown Estate Act 2019.
Planning (Scotland) Bill	An Act of the Scottish Parliament to make provision about how land is developed and used. The Bill is part of a wider planning system reform responding to an independent review of planning, which includes changes to secondary legislation made under existing powers as well as non-legislative changes. Some of the key aspects of the Bill are its provisions in relation to the system of development plans; the opportunities for community engagement in planning; the effective performance of planning authorities' functions; and a new way to fund infrastructure development.	The SEA should be mindful of the requirements proposed by the Planning (Scotland) Bill.
National (Policies, Plans, Programmes and Strategies)		
National Planning Framework 3 (the Scottish Government, 2014)	The National Planning Framework 3 sets out the Scottish Government's spatial development/investment priorities over the next 20-30 years. It is a long-term strategy to promote environmental sustainability, equality in opportunity, technological progress and human well-being and health. Key outcomes of the framework are as follows:	The SEA should reflect the objectives to make Scotland a **successful, sustainable** place; a **low carbon** place; a **natural, resilient** place;

	• Creating sustainable places • Reducing carbon emissions and adapting to climate change • Protecting and enhancing Scotland's natural cultural assets as well as facilitating their sustainable use • Supporting better transport and digital connectivity	and, a **connected** place.
Scottish Planning Policy (The Scottish Government, 2014)	The purpose of the Scottish Planning Policy is to set out national planning policies on how to address land use matters across the country. It is non-statutory, however, it is in line with the Town and Country Planning (Scotland) • Creating sustainable places • Reducing carbon emissions and adapting to climate change • Protecting and enhancing Scotland's natural cultural assets as well as facilitating their sustainable use • Supporting better transport and digital connectivity	The SEA should reflect the objectives to make Scotland a **successful, sustainable** place; a **low carbon** place; a **natural, resilient** place; and, a **connected** place.

Biodiversity, flora and fauna

Source	Key objectives	Implications/comments
BIODIVERSITY, FLORA AND FAUNA		
International		
Bern Convention (1979)	To ensure conservation and protection of wild plant and animal species and their natural habitats (listed in Appendices I and II of the Convention), to increase cooperation between contracting parties, and to regulate the exploitation of those species) listed in Appendix III. To this end the Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1,000 wild animal species.	The SEA should consider **the preservation and protection of the environment**.
Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979)	To ensure that contracting parties work together to conserve terrestrial, marine and avian migratory species and their habitats (on a global scale) by providing strict protection for endangered migratory species. The overarching objectives set for the Parties are: • Promote, co-operate in and support research relating to migratory species • Endeavour to provide immediate protection for migratory species	The SEA should reflect the objectives **protecting biodiversity and the natural environment.**

Source	Key objectives	Implications/comments
	included in Appendix I • Endeavour to conclude Agreements covering the conservation and management of migratory species included in Appendix II	
Ramsar Convention (1971)	To promote the wise use of wetlands and their resources. The Convention's mission is "*the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world*".	The SEA should take into account the **conservation of wetlands and their resources**.
The Convention on Biological Diversity (2010)	The Convention on Biological Diversity (CBD) is a multilateral treaty which served three main goals, including: • Conservation of biological diversity • Sustainable use of its components • Fair and equitable sharing of benefits arising from genetic	The SEA should reflect objectives **protecting biodiversity and sustainable use of its components.**
European		
The Habitats Directive 1992 Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora	To promote the maintenance of biodiversity taking account of economic, social, cultural and regional requirements. Conservation of natural habitats and maintain landscape features of importance to wildlife and fauna.	The SEA should reflect objectives to **protect and maintain the natural environment and important landscape features.**
The Birds Directive 2009 Directive 2009/147/EC is a codified version of Directive 79/409/EEC as amended	The preservation, maintenance, and re-establishment of biotopes and habitats shall include the following measures: • Creation of protected areas. • Upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones. • Re-establishment of destroyed biotopes. • Creation of biotopes.	The SEA should reflect objectives for the **protection of birds.**
EU Biodiversity Strategy to 2020 (European Commission, 2011)	The European Commission has adopted an ambitious new strategy to halt the loss of biodiversity and ecosystem services in the EU by 2020. The six targets cover: • Full implementation of EU nature legislation to protect biodiversity • Better protection for ecosystems, and more use of green infrastructure • More sustainable agriculture and forestry	The SEA should reflect objectives to **value, protect and enhance biodiversity.**

Source	Key objectives	Implications/comments
	• Better management of fish stocks • Tighter controls on invasive alien species • A bigger EU contribution to averting global biodiversity loss	
EU Seventh Environmental Action Plan to 2020 (European Commission, 2013)	The EU's objectives in implementing the programme are: (a) to protect, conserve and enhance the Union's natural capital; (b) to turn the Union into a resource-efficient, green and competitive low-carbon economy; (c) to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing; (d) to maximise the benefits of the Union's environment legislation; (e) to improve the evidence base for environment policy; (f) to secure investment for environment and climate policy and get the prices right; (g) to improve environmental integration and policy coherence; (h) to enhance the sustainability of the Union's cities; (i) to increase the Union's effectiveness in confronting regional and global environmental challenges.	The SEA should reflect objectives to **protect and enhance the natural environment**.
National (Legislation)		
Wildlife and Countryside Act 1981 (as amended)	The Act implements the principles of the Bern Convention and the EU Birds Directive in the UK. Since it came into force, the Act has been amended several times. The act applies to the terrestrial environment and inland waters. According to the Act, Scottish Natural Heritage (SNH) is a regulator of the Wild and Countryside Act and is legally responsible for Sites of Special Scientific Interest (SSSIs) and to enforce law when necessary. It is important to note that specific amendments, which only apply in Scotland due to devolution, have been made to the Act.	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
The Conservation (Natural Habitats, &c.) Regulations 1994	The Act amends the Wildlife and Countryside Act 1981 for Scotland. The Act, together with the Nature Conservation (Scotland) Act 2004, implements the EU Birds and Habitats Directives.	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
Nature Conservation (Scotland) Act 2004	The Act amends the Wildlife and Countryside Act 1981 for Scotland, and makes provision for the further conservation of biodiversity. The Act requires the Scottish Government to report on progress in relation to the Scottish	The SEA should reflect objectives to **protect biodiversity and the natural environment.**

Source	Key objectives	Implications/comments
	Biodiversity Strategy	
Wildlife and Natural Environment (Scotland) Act 2011 (as amended)	The Act amends the Wildlife and Countryside Act 1981 for Scotland. The Act mainly changed the way land and the environment is managed in Scotland e.g. it made operational changes to how SSSIs are managed.	The SEA should reflect objectives to **protect and enhance designated biodiversity areas.**
The Conservation of Offshore Marine Habitats and Species Regulations 2017	The Regulations form the legal basis for the implementation of the Habitats Directive and the Bird Directive in terrestrial areas and territorial waters.	The SEA should reflect objectives to **value, protect and enhance marine habitats and species**.
National (Policies, Plans, Programmes and Strategies)		
UK Post-2010 Biodiversity Framework (JNCC, 2012)	The Framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Biodiversity Targets' and the aims of the EU biodiversity strategy. The Framework identifies the following strategic goals: • Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society. • Reduce the direct pressures on biodiversity and promote sustainable use. • Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. • Enhance the benefits to all from biodiversity and ecosystems. • Enhance implementation through participatory planning, knowledge management and capacity building.	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
Scotland's Biodiversity: It's in Your Hands (Scottish Executive, 2004)	*Scotland's Biodiversity: It's in Your Hands* presents a 25 year strategy (until 2030) for the conservation and enhancement of Scotland's biodiversity. It sets out a number of outcomes in relation to; • Species and habitats • People • Landscapes and Ecosystems • Integration and Co-ordination • Knowledge	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
2020 Challenge for Scotland's Biodiversity – A Strategy for the conservation and enhancement of biodiversity in Scotland (The Scottish Government, 2013)	The aims of the *2020 Challenge* are in line with the targets set by the aforementioned United Nations Convention on Biological Diversity (20100 and the European Union's Biodiversity Strategy for 2020, and include: • Protect and restore biodiversity on land and in Scotland's SAs	The SEA should reflect objectives to **value, protect and enhance biodiversity.**

Source	Key objectives	Implications/comments
	• Involve and engage people in decisions about the environment • Promote sustainable economic growth The 2020 Challenge and the 'Scotland's Biodiversity: It's in Your Hands' together make up the Scottish Biodiversity Strategy.	
Scotland's Biodiversity: A Route Map to 2020 (The Scottish Government, 2015)	The 'Six Big Steps for Nature' identified in the Route Map are: • Ecosystem restoration • Investment in natural capital • Quality greenspace for health and education benefits • Conserving wildlife in Scotland • Sustainable management of land and freshwater • Sustainable management of marine and coastal ecosystems	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
SBS 2020 Challenge: Crown Estate Scotland Delivery Statement (Crown Estate Scotland, 2018)	Crown Estate Scotland's assets are significant in supporting the delivery of Scottish Government objectives relating to the environment. The 'Six Big Steps for Nature' inform Crown Estate Scotland's work and are integrated in their business planning. Crown Estate Scotland work with tenants on ecosystem restoration, woodland management, habitat and species management and the delivery of educational work on the Glenlivet estate. The Biodiversity Statement identifies Crown Estate Scotland's role and targets to meet the 'Six Big Steps for Nature'.	The SEA should reflect objectives to **value, protect and enhance biodiversity.**
Scottish Biodiversity Strategy; Report to the Scottish Parliament 2014-2016	Report to the Scottish Parliament which sets out progress with delivery of the Scottish Biodiversity Strategy. It records progress from 2014-2016 and highlights the remaining challenges that must be overcome to meet the aims of the 2020 Challenge for Scotland's Biodiversity	The SEA should reflect objectives to **value, protect and enhance biodiversity.**

Population and human health

Source	Key objectives	Implications / comments
POPULATION AND HUMAN HEALTH		
International		
International Health Regulations, 2007	The International Health Regulations provide a legal instrument for upholding global public health security by preventing and responding to acute public health risks. The Regulations require countries to report certain disease outbreaks and public health risks to the World Health Organisation.	The SEA should reflect the objective that **acknowledges the potential health hazards** that could be caused by the different development types.
European		
The Bathing Water Quality Directive 2006 Directive 2006/7/EC on the quality of water intended for human consumption	The overall objective of the revised Directive remains the protection of public health whilst bathing.	The SEA should reflect the Directive requirements and **protect the quality of bathing waters**.
The Drinking Water Directive 1998 Directive 98/83/EC on the quality of water intended for human consumption	Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.	The SEA should reflect objectives to **protect and enhance drinking water quality.**
The Noise Directive 2000/14/EC	• Monitor the environmental problem by drawing up strategic noise maps. • Informing and consulting the public about noise exposure, its effects and the measures considered to address noise. • Addressing local noise issues by requiring authorities to draw up action Plans to reduce noise where necessary and maintain environmental noise where it is good.	The SEA should reflect objectives to **reduce noise pollution.**
National (Legislation)		
Public Health etc. (Scotland) Act 2008	The Act updates the law on public health, enabling Scottish Ministers to protect public health. It also makes provision for law on statutory nuisances.	The SEA should reflect objectives to **protect public health.**
National (Policies, Plans, Programmes and Strategies)		
National Performance Framework (The Scottish Government, 2016)	The main purpose of the National Performance Framework is to promote sustainable economic growth by setting out a measurement set that can be used to determine the extent to which key targets are being fulfilled. It sets seven broad targets in relation to:	The SEA should reflect objective to **promote the principles of sustainable economic growth.**

Source	Key objectives	Implications / comments
	• Growth – stimulating economic growth • Productivity – improving productivity • Participation – improving economic participation • Population – increase population growth • Solidarity – reduce income equality • Cohesion – reduce inequalities in economic participation • Sustainability – reduce greenhouse gas emissions	
Cycling Action Plan for Scotland More people cycling more often (Scottish Government, 2010) *http://www.gov.scot/resource/doc/316212/0100657.pdf*	The action plan includes the vision that by 2020, 10% of all journeys taken in Scotland will be by bike. It supports skills development, improvements to the cycle network, and active travel.	The SEA should reflect objectives which **support opportunities for active travel**.
Scotland's Public Health Priorities (Scottish Government, 2018)	Sets out the six public health priorities for Scotland and how they are to be developed. The 6 priorities are: • A Scotland where we live in vibrant, healthy and safe places and communities • A Scotland where we flourish in our early years • A Scotland where we have good mental wellbeing • A Scotland where we reduce the use of and harm from alcohol, tobacco and other drugs • A Scotland where we have a sustainable, inclusive economy with equality of outcomes for all • A Scotland where we eat well, have a healthy weight and are physically active	The SEA should reflect objectives which **support Scotland's public health priorities.**
A More Active Scotland: Scotland's Physical Activity Delivery Plan (Scottish Government, 2018)	The main purpose of this plan is to promote physical activity in Scotland and create a Scotland where people are more active, more often.	The SEA should reflect objectives which **support opportunities for physical activity.**

Soil

Source	Key objectives	Implications / comments
SOIL		
European		
EU Management of Waste from Extractive Industries (2006/21/EC)	The purpose of the Directive is to prevent water and soil pollution from the deposition of waste into heaps or ponds and puts emphasis on the long-term stability of waste facilities to help avoid major accidents. The main elements of the Directive are: • Conditions for operating permits. • General obligations concerning waste management. • The obligation to characterise waste before disposing of it or treating it. • Measures to ensure the safety of waste management facilities. • A requirement to draw up closure plans. • An obligation to provide for an appropriate level of financial security.	The SEA should reflect objectives to **protect soil quality and minimise soil pollution.**
The Industrial Emissions Directive 2010 Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)	This Directive lays down rules on integrated prevention and control of pollution arising from industrial activities. It also lays down rules designed to prevent or, where that is not practicable, to reduce emissions into land and to prevent the generation of waste, in order to achieve a high level of protection of the environment taken as a whole.	The SEA should reflect objectives to **protect soil quality and minimise soil pollution.**
Thematic Strategy for Soil Protection (European Commission, 2006)	Includes a thematic strategy which aims to: • Establish common principles for the protection and sustainable use of soils • Mitigate potential threats to soils • Preserve soil functions • Restore degraded and contaminated soils	The SEA should reflect objectives to **protect soils and minimise soil pollution.**
National Legislation		
Environmental Protection Act 1990 (as amended)	Sets out legislation for the management and remediation of contaminated land that, in its current states, is causing or has the potential to cause significant pollution of the environment.	The SEA should reflect objectives to **protect soil quality.**
Contaminated Land (Scotland) Regulations 2000	Provides a detailed framework for the definition, identification and	The SEA should reflect objectives

Source	Key objectives	Implications / comments
	remediation of contaminated land.	to **protect soil quality.**
National (Policies, Plans, Programmes and Strategies)		
The Scottish Soil Framework (The Scottish Government, 2009)	The Soil Framework sets out a vision for the enhancement and protection of soil consistent with the economic, social and environmental needs of Scotland. The Framework identifies 13 key outcomes, as follows: • Protecting and enhancing soil organic matter • Reducing soil erosion • Maintaining soil structure • Reduce greenhouse gas emissions from soils • Protecting soil biodiversity • Ensuring that soils contribute to sustainable flood management • Enhancing water quality through sustainable soil management • Enhancing soil's productive capacity • Reducing soil contamination • Reducing pressure on greenfield land and redirect development to brownfield sites where appropriate • Protecting soils with significant historical and cultural features • Enhancing knowledge base • Promoting effective coordination between stakeholders	The SEA should reflect objectives to **protect soils and minimise soil pollution.**
Scotland's National Peatland Plan *Working for our future (Scottish Natural Heritage, 2015)*	This plan sets out proposals for the sustainable use, protection, management and restoration of Scotland's peatlands. It identifies the following outcomes: • Protect those areas of peatland currently in good condition and supporting their potential range of ecosystem functions; • Enhance ecosystem resilience to climate change through appropriate management; • Restore peatland ecosystem functions and biodiversity, evaluating and understanding the benefits to help inform future decisions; • Secure greater peatland restoration capabilities and understanding of these amongst land managers, developers, advisers and the	The SEA should reflect objectives to protect and promote sustainable use and management of peatlands.

Source	Key objectives	Implications / comments
	public; • Ensure peatland values are reflected in the support given to those who manage and restore them; and • Demonstrate and communicate the wider public benefits of healthy peatland landscapes and peatland restoration.	

Water

Source	Key objectives	Implications/comments
WATER		
International		
Convention on the Law of the Sea (1982)	Defines the rights and responsibilities of national in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of natural resources.	The SEA should reflect objectives to **protect and enhance the water environment**.
European		
The Water Framework Directive 2000 Directive 2000/60/EC establishing a framework for community action in the field of water policy	The main aim of the Directive is to protect of inland surface waters, transitional waters, coastal waters and ground waters.	The SEA should reflect objectives to **protect and minimise the impact on water quality.**
The Bathing Water Quality Directive 2006 Directive 2006/7/EC on the quality of water intended for human consumption	The overall objective of the revised Directive remains the protection of public health whilst bathing.	The SEA should reflect the Directive requirements and **protect the quality of bathing waters**.
The Floods Directive 2007 Directive 2007/60/EC on the assessment and management of flood risks	Establish a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods.	The SEA should reflect objectives that relate to **flood management and reduction of risk.**
The Nitrates Directive 1991 Directive 91/676/EEC on nitrates from agricultural sources.	Reduce water pollution caused or induced by nitrates from agricultural sources and prevent further such pollution.	The SEA should reflect objectives to **reduce water pollution.**

Source	Key objectives	Implications/comments
Marine Strategy Framework Directive 2007	The MSFD extends the requirements of the Water Framework Directive (WFD) into seas beyond 1nm. The MSFD requires Member States to *"take necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest".*	The SEA should reflect objectives to **protect and enhance the water environment**.
National (Legislation)		
Marine (Scotland) Act 2010		
Bathing Waters (Scotland) Regulations 2008	The Act implements the EU Bathing Water Quality Directive.	The SEA should reflect objectives that relate to **flood management and reduction of risk.**
Flood Risk Management (Scotland) Act 2009	The Act requires local authorities to assess bodies of water to determine potential flood risk and carry out measures if required. The Act implements the EU Floods Directive.	The SEA should reflect objectives that relate to **flood management and reduction of risk.**
Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended)	Provides a regulatory framework for controlling activities which could have an adverse effect on Scotland's water environment including abstraction, impoundments, dredging, impoundments, surface water drainage and pollution. The primary objective of the Regulations is to protect and restore Scotland's water environment.	The SEA should reflect objectives to **protect and restore the water environment.**
Water Environment (Miscellaneous) (Scotland) Regulations 2017	The Regulations amend existing general binding rules and introduces requirements for particular projects to have a construction license in place before works can commence.	The SEA should reflect sustainability objectives to **protect the natural environment.**
The Flood Risk Management (Flood Protection Schemes, Potentially Vulnerable Areas and Local Plan Districts) (Scotland) Amendment Regulations 2017	Provides a regulatory framework for flood risk management amending the previous regulations made in 2009.	The SEA should reflect sustainability objectives to relate to flood management and reduction of risk.
National (Policies, Plans, Programmes and Strategies)		
National Marine Plan 2015	The plan covers the management of both Scottish inshore waters (out to 12 nautical miles) and offshore waters (12 to 200 nautical miles). It also applies to the exercise of both reserved and devolved functions. It provides guidance to d**ecision-makers and users within Scotland's marine environment.**	The SEA should reflect sustainability objectives to protect the sustainable use of the marine environment.
SEPA Draft River Basin Management Plans Scotland River Basin District / Solway Tweed River Basin District 2008	Identifies key pressures and environmental impacts on Scottish water bodies, which may be exacerbated by climate change.	The SEA should reflect objectives that relate to **flood management and reduction of risk.**
Scotland's Bathing Waters: A Strategy For Improvement (Scottish Executive Environment	The main purpose of this strategic document is to reduce water pollution in bathing waters by implementing changes to agricultural practices, ensuring	The SEA should reflect the Directive requirements and

Source	Key objectives	Implications/comments
Group, 2002)	compliance with controls on industrial discharges and making use of SUDs.	**protect the quality of bathing waters**.

Air

Source	Key objectives	Implications / comments
AIR		
International		
UNECE Convention on Long Range Transboundary Air Pollution (198	The purpose of the UNECE Convention was to address the environmental consequences of air pollution. The main aim of the Convention was to reduce and prevent air pollution in order to improve air quality on the local, regional and national levels. To achieve this, the Convention sets out measures to be taken by parties to cut their emissions of air pollutions. The UNECE Convention has been extended by eight other protocols that identify measures to be undertaken by Parties to cut their emissions of air pollutants. These eight protocols include the following: • EMEP Protocol on Long-Term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutions in Europe (1984) • Helsinki Protocol on the Reduction of Sulphur Emissions (1985) • Nitrogen Oxide Protocol (1988) • Volatile Organic Compounds Protocol (1991) • Oslo Protocol on Further Reduction of Sulphur Emissions (1994) • Protocol on Heavy Metals (1998) • Aarhus Protocol on Persistent Organic Pollutants (1998) • Gothenburg Protocol on Abate Acidification, Eutrophication and Ground-level Ozone (1999)	The SEA should reflect the objectives to **protect and enhance air quality** from factors such as eutrophication and acidification
European		
The National Emissions Ceiling Directive 2001 Directive 2001/81 EC on national emission ceilings	The Directives sets limits for the main causal factors of acidification, eutrophication and ground-level ozone.	The SEA should reflect the objectives to **protect and**

Source	Key objectives	Implications / comments
for certain atmospheric pollutants		**enhance air quality** from factors such as eutrophication and acidification.
The Air Quality Directive 2008 Directive 2008/50/EC on ambient air quality and cleaner air for Europe	Avoid, prevent and reduce harmful effects of air pollution on human health and the environment. The Directive Brings together existing legislation (at the time) on air quality, including objectives for key pollutants such as SO_2, NO_x, particulates, lead, benzene and ozone. The Directive sets out statutory limits for the concentration of different pollutants (Annex XI) and thresholds for human and environmental health (Annex II).	The SEA should reflect the objectives to **reduce harmful effects of air pollution.**
The Industrial Emissions Directive 2010 Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)	This Directive lays down rules on integrated prevention and control of pollution arising from industrial activities. It also lays down rules designed to prevent or, where that is not practicable, to reduce emissions into air in order to achieve a high level of protection of the environment taken as a whole.	The SEA should reflect the objective for **reducing air pollution caused by industrial emissions.**
The Clean Air Policy Package and Clean Air Programme for Europe 2013	The Clean Air Policy Package and Clean Air Programme for Europe set targets up to 2030, and also introduces measures and proposals to reduce emissions and improve air quality across the EU.	The SEA should reflect the objectives to **protect and enhance air quality.**
National (Legislation)		
The Environment Act 1995	The Act requires the UK government and devolved administrations to produce a national air quality strategy. The most recent version of this national air quality strategy is The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, which defines the roles of the local and central government, as well as the Scottish Environment Protection Agency (SEPA), industry, business, transport, individuals and other groups. In addition, the Act sets objectives for specific emissions and measures for monitoring. Where limits are not met, the local authority must declare it an Air Quality Management Area (AQMA)	The SEA should reflect the objective for **reducing air pollution**.
The Air Quality (Scotland) Regulations 2000 *As amended by the Air Quality (Scotland) Amendment Regulations 2002 and the Air Quality (Scotland) Amendment Regulations 2016*	Sets out air quality objectives for several substances in line with the Environment Act 1995. In contrast to EU requirement, Scotland has set stricter levels for specific pollutants including PM_{10} and $PM_{2.5}$.	The SEA should reflect the objective for **reducing air pollution.**
The Air Quality Standards (Scotland) Regulations (2010)	Sets statutory targets for concentrations of pollutants in ambient air in accordance with EU Directives. The Act allows for Air Quality Management Zones to be identified and makes provision for the sharing of this information with the public. The Regulations were amended through The Air Quality Standards (Scotland) Amendment Regulations 2016.	The SEA should reflect the objective for **reducing air pollution**.

Source	Key objectives	Implications / comments
Pollution Prevention and Control (Scotland) Regulations 2012	Implements the requirements of the EU Industrial Emissions Directive in Scotland. The Act states that emissions to air, water and land must be considered together, and permits are considered based on the nature of the activity. The Act has been amended several times since 2012.	The SEA should reflect the objective for **reducing air pollution.**
National (Policies, Plans, Programmes and Strategies)		
The Air Quality Strategy for England, Scotland, Wales and Northern Ireland (2011)	The key objective of the strategy is to improve and protect ambient air quality in the UK, with the overall aim of health protection. The strategy sets out key objectives and monitoring recommendations for specific emissions.	The SEA should reflect the objective for **reducing air pollution, particularly in relation to health protection.**
Cleaner Air for Scotland – The Road to a Healthier Future (the Scottish Government, 2015)	Presents a single framework which sets out further proposals for delivering improvements to air quality in Scotland. It summarises six broad types of key actions that could help to reduce air pollution and improve air quality; **Transport** – reducing transport emissions by promoting active travel and/or low and zero emission fuels **Legislation and Policy** – comply with European and Scottish legal requirements **Communication** – inform and engage citizens **Health** – protecting citizens from air pollution **Placemaking** – minimise air pollution through appropriate design **Climate Change** – achieve Scotland's renewable targets	The SEA should reflect the objective for **reducing air pollution and promote active/sustainable travel**.

Climatic factors

Source	Key objectives	Implications/comments
CLIMATIC FACTORS		
International		
IPCC's Fifth Assessment Report on Climate	To limit and/or reduce all greenhouse gas emissions which contribute to	The SEA should reflect objectives to **support reduction in**

Source	Key objectives	Implications/comments
Change (2014)	climate change	**emissions of greenhouse gases.**
Paris Agreement (United Nations 2015)	The main aim of the Paris Agreement centres on keeping global temperature rise this century below 2°C above preindustrial levels. Frameworks are to be put in place to help achieve these goals.	The SEA should reflect objectives to **adapt and mitigate climate change.**
European		
Emissions Trading System Directive 2009 Directive 2009/29/EC to improve and extend the greenhouse gas emission allowance trading scheme of the Community	The main aim of the Directive is to improve and extend the greenhouse gas emission allowance trading scheme of the Community	The SEA should reflect objectives to **promote energy efficiency and reduce the emission of greenhouse gases.**
Renewable Energy Directive 2009 Directive 2009/28/EC on the use of energy from renewable sources	The Directive sets targets for renewable energy use within the EU, which requires that 20% of the energy consumed within the EU is renewable.	The SEA should reflect objectives to **promote renewable energy.**
Energy Efficiency Directive 2012 Directive 2012/30/EU on energy efficiency	The purpose of the Directive is to promote energy efficiency by establishing a set of binding measures to help the EU reach its 20% energy efficiency target by 2020.	The SEA should reflect objectives to **promote energy efficiency and prudent use of resources.**
National (Legislation)		
Climate Change (Scotland) Act 2009 Including amendments made by Climate Change Bill (2018)	The Act sets statutory targets for the reduction of greenhouse gas emissions and makes further provision about energy efficiency and about the reduction and recycling of waste. The Act sets an interim 42 percent reduction target by 2020 and an 80 percent reduction target for 2050. Secondary legislation has been made under the Climate Change (Scotland) Act 2009, including: • *The Climate Change (Annual Targets) (Scotland) Order 2010*: sets emission reduction targets for 2010-2022 • *The Climate Change (Limit on Carbon Units) (Scotland) Order 2010*: places a limit on the amount of carbon units that may be credited to net Scottish Emissions for the period 2010-2012 • *The Carbon Accounting Scheme (Scotland) Regulations 2010*: establish a scheme for monitoring compliance with annual reduction targets for 2010-22 (as amended in 2015 and 2016) • *The Climate Change (Annual Targets) (Scotland) Order 2011*: sets emission reduction targets for 2023-2027 • *The Climate Change (Limit on Carbon Units) (Scotland) Order 2011*: places a limit on the amount of carbon units that may be credited to	The SEA should reflect the objective to **reduce the emission of greenhouse gases and mitigate climate change**

Source	Key objectives	Implications/comments
	net Scottish Emissions for the period 2023-2027 • *The Climate Change (Limit on Carbon Units) (Scotland) Order 2010*: places a limit on the amount of carbon units that may be credited to net Scottish Emissions for the period 2013-2017 • *The Climate Change (Additional Greenhouse Gas) (Scotland) Order 2015*: adds nitrogen trifluoride as an additional greenhouse gas listed in the Climate Change (Scotland) Act 2009 • *The Climate Change (Annual Targets) (Scotland) Order 2016*: sets annual reduction targets for 2028-2032 • *The Climate Change (Limit on Carbon Units) (Scotland) Order 2010*: places a limit on the amount of carbon units that may be credited to net Scottish Emissions for the period 2018-2022 Part 5 of the Climate Change (Scotland) Act 2009 also includes secondary legislation in relation to the energy performance of buildings and the functions of forestry commissioners.	
National (Policies, Plans, Programmes and Strategies)		
A Low Carbon Economic Strategy for Scotland – Scotland, A Low Carbon Society (The Scottish Government, 2010)	The main purpose of the Low Carbon Economic Strategy is to achieve the targets as set out in the Climate Change (Scotland) Act 2009. The document provides a comprehensive framework for developing a low carbon economy across Scotland. The strategy sets out measures that could be undertaken by Parties to cut their greenhouse gas emissions. This vision relates to the energy sector, the built environment, Scotland's resources and businesses.	The SEA should reflect objectives to **support the reduction of greenhouse gas emissions**
Towards a Low Carbon Scotland – Smart Cities (The Scottish Government, 2012)	The purpose of the document is to highlight the ways in which Scotland can become a low carbon society by presenting a number of case studies about sustainable urban development in Scottish cities such as district heating development and a hydrogen bus project in Aberdeen, renewable energy projects in Edinburgh and the 'Energy from Waste' project in Glasgow.	The SEA should **support the reduction of greenhouse gas emissions.**
Climate Change Bill Consultation Paper (The Scottish Government, 2017)	The Climate Change Bill contains proposals to amend the Climate Change (Scotland) Act 2009 in relation to only those parts that relate to emission reduction targets (including associated reporting duties).	The SEA should reflect objectives to **support the reduction of greenhouse gas emissions.**
A nation with ambition: The Government's Programme for Scotland 2017-18	One of the key objectives of the Programme is to promote further investments in renewable energies, renewable technologies and sustainable modes of transport in order to tackle climate change.	The SEA should reflect objectives to **support renewable technologies, sustainable modes of transport.**
The Draft Climate Change Delivery Plan (The Scottish Government, 2017)	The Climate Change (Scotland) Act 2009 requires that Ministers publish a report setting out policies and proposals to meet annual targets. With the publication of the Climate Change Delivery Plan, the Scottish Government	The SEA should reflect objectives to **adapt and mitigate climate**

Source	Key objectives	Implications/comments
	aims to meet its emission reduction targets over the period 2017-2032.	**change.**
The Scottish Energy Strategy (The Scottish Government, 2017)	Scotland's Energy Strategy sits alongside the aforementioned Climate Change Delivery Plan. Three key themes underpin the Strategy; • A whole-system view in which energy supply and consumption are seen as equal priorities • A stable energy transition towards renewable energies and sustainable transport • A smarter model of local energy provision which promotes local energy, community involvement and community ownership of energy generation	The SEA should reflect objectives to **adapt to and mitigate climate change.**
Scottish Emissions Targets 2028-2032 – The high ambition pathway towards a low-carbon economy (Committee on Climate Change, 2016)	Sets out recommendations by the Committee on Climate Change which involves the following; • Significant rollout of low-carbon heat pumps and heat networks • Promoting sales of electric cars • Stimulating afforestation in Scotland • Expanding renewable power and shutdown of coal-fired power	The SEA should reflect objectives to **reduce greenhouse gas emissions.**
Climate Ready Scotland: Scottish Climate Change Adaptation Programme (The Scottish Government, 2014)	Addresses the impacts identified for Scotland in the UK Climate Change Risk Assessment (CCRA) published under section 56 of the UK Climate Change Act 2008. It aims to increase the resilience of Scotland's people, environment and economy to the impacts of a changing climate.	The SEA should reflect objectives to **mitigate the effects of climate change.**
Climate Change Plan (2018)	The Climate Change Plan sits alongside the Scottish Government's Energy Strategy, and provides the strategic framework for our transition to a low carbon Scotland. Building on previous reports on policies and proposals, the Plan sets out the path to a low carbon economy while helping to deliver sustainable economic growth and secure the wider benefits to a greener, fairer and healthier Scotland in 2032.	The SEA should reflect objectives to **reduce greenhouse gas emissions.**
Climate Change Plan – the Third Report on Proposals and Policies 2018-2032.	The report details how the Scottish Government will continue to drive progress towards the current emissions reduction target of 80% by 2050, The 2020 target is for restoring 50,000 hectares of degraded peatland, and by 2030 this target will have increased to 250,000 hectares.	The SEA should reflect objectives to reduce greenhouse gas emissions.
Renewables Action Plan (2009)	Set out short term actions towards the delivery of 2020 targets for renewable energy	The SEA should reflect objectives to **reduce greenhouse gas emissions.**
2020 Routemap for Renewable Energy in Scotland	Reflects the new target to meet an equivalent of 100% demand for electricity	The SEA should reflect objectives

Source	Key objectives	Implications/comments
(2011), updated 2013	from renewable energy by 2020, as well as our target of 11% renewable heat.	to **reduce greenhouse gas emissions.**
Blue Seas, Green Energy: A Sectoral Marine Plan for Offshore Wind Energy in Scottish Territorial Waters (2011)	Sets out the Scottish Government's approach to offshore wind energy in territorial waters.	The SEA should reflect objectives to **reduce greenhouse gas emissions**
Seaweed Cultivation Policy Statement 2017	The policy statement aims to help facilitate the growth of this sector by setting out Scottish Government Policy on the suitability of seaweed cultivation in different scenarios, while ensuring that activities which may have an environmental impact are understood and mitigated.	The SEA should reflect objectives to protect the natural environment.
Marine Litter Strategy (2014)	The marine litter strategy seeks to maximise opportunities and minimise threats in addressing the levels of litter present.	The SEA should reflect objectives to protect the natural environment.
Climate Ready Scotland: Scottish Climate Change Adaption Programme 2- Consultation Draft (2019-2024)	Building on the Adaptation Programme 1, this attempts increase the resilience of Scotland's people, environment and economy to the impacts of a changing climate.	The SEA should reflect objectives to **mitigate the effects of climate change.**

Cultural heritage and the historic environment

Source	Key objectives	Implications/comments
CULTURAL HERITAGE AND THE HISTORIC ENVIRONMENT		
International		
European Convention on the Protection of the Archaeological Heritage (Valletta, 1992) *Revision of the 1985 Granada Convention*	Protection of the archaeological heritage, including any physical evidence of the human past that can be investigated archaeologically both on land and underwater. Creation of archaeological reserves and conservation of excavated sites.	The SEA should reflect objectives to **protect the archaeological heritage**.
European		
European Spatial Development Perspective (1999)	Economic and social cohesion across the community. Conservation of natural resources and cultural heritage. Balanced competitiveness between different tiers of government.	The SEA should reflect objectives to **conserve natural resources and cultural heritage.**

Source	Key objectives	Implications/comments
National (Legislation)		
Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997	Provides main legislation to: • list buildings of special architectural or historic interest • providing requirements in relation to changes affecting listed buildings and conservation areas • setting out a framework for designating and managing Conservation Areas	The SEA should reflect objectives to **conserve cultural heritage, particularly in relation to Listed Buildings, Conservation Areas and buildings of special architectural or historic interest.**
National Parks (Scotland) Act 2000	Sets out for main aims for the National Parks of Scotland: • Conserving and enhancing the natural and cultural heritage of the area • Promoting sustainable use of the natural resources of the area • Promoting understanding and enjoyment of the area by the public • Promoting sustainable economic and social development of the area's communities	The SEA should reflect objectives to **conserve cultural heritage in National Parks.**
Historic Environment Scotland Act 2014	The Act established Historic Environment Scotland (HES) as a Non Departmental Public Body (NDPB). Under the Act, HES will be a statutory consultee in relation to listed buildings and conservation area consents, as well as in relation to EIA. The Act also amended statutory processes in relation to the historic environment by changing the processes for the designation of sites and buildings (by scheduling and listing) and for consents relating to scheduled monuments, listed buildings and conservation areas.	The SEA should reflect objectives to **conserve cultural heritage and the wider historic environment.** In addition, the role of Historic Environment Scotland should be taken into account.
The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 *The Town and Country Planning (Neighbouring Planning Authorities and Historic Environment) (Scotland) Direction 2015*	Both Acts state that Historic Environment Scotland must be consulted on any development affecting a UNESCO World Heritage Site in Scotland.	The SEA should reflect objectives to **conserve cultural heritage and the wider historic environment.**
National (Policies, Plans, Programmes and Strategies)		
Our Place in Time – The Historic Environment Strategy for Scotland (The Scottish Government, 2014)	The Strategy provides a high level framework which sets out a 10-year vision for safeguarding the cultural, social, environmental and economic value of Scotland's heritage assets. The Strategy sets out three main aims: • Investigating and recording the assets that make up Scotland's	The SEA should reflect objectives to **conserve the historic environment.**

Source	Key objectives	Implications/comments
	historic environment • Protecting Scotland's historic environment • Sharing information on the significance of Scotland's historic environment Each ambition is underpinned by a number of strategic priorities e.g. application of new technologies.	
Historic Environment Policy for Scotland (HEPS)	This policy replaces the 2016 Policy Statement and supports the protection and enhancement of the historic environment, and sets out the principles for designation.	The SEA should reflect the principles of the protection and enhancement of the historic environment.

Landscape and geodiversity

Source	Key objectives	Implications / comments
LANDSCAPE AND GEODIVERSITY		
European		
European Landscape Convention (Florence, 2002)	The convention promotes landscape protection, management and planning.	The SEA should reflect objectives **to protect, manage and plan for landscape provision.**
National (Policies, Plans, Programmes and Strategies)		
Getting the best from our land A Land Use Strategy for Scotland 2016-2021	The Strategy supports sustainable land use, and recognises the interactions between different interests and land use. The objectives of the strategy include: • Land-based businesses working with nature to contribute more to Scotland's prosperity. • Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people. • Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use.	The SEA should reflect the need to support **sustainable land use**.
Scottish Land Rights and Responsibilities Statement 2017	This statement sets out 6 principles relating to land rights and responsibilities. It aims to work towards a Scotland with a strong and dynamic relationship between its land and people, where all land contributes to a modern and successful country,	The SEA should reflect objectives to promote a strong relationship between Scotland's land and

Source	Key objectives	Implications / comments
	and where rights and responsibilities in relation to land are fully recognised and fulfilled. The 6 principles outlined are: • The overall framework of land rights, responsibilities and public policies should promote, fulfil and respect relevant human rights in relation to land, contribute to public interest and wellbeing, and balance public and private interests. The framework should support sustainable economic development, protect and enhance the environment, help achieve social justice and build a fairer society • There should be a more diverse pattern of land ownership and tenure, with more opportunities for citizens to own, lease and have access to land. • More local communities should have the opportunity to own, lease or use buildings and land which can contribute to their community's wellbeing and future development. • The holders of land rights should exercise these rights in ways that take account of their responsibilities to meet high standards of land ownership, management and use. Acting as the stewards of Scotland's land resource for future generations they contribute to sustainable growth and a modern, successful country • There should be improved transparency of information about the ownership, use and management of land, and this should be publicly available, clear and contain relevant detail. • There should be greater collaboration and community engagement in decisions about land	people.
Scotland's Forestry Strategy 2019-2029	The strategy supports an increase in Scotland's forests and woodlands that will be sustainably managed and better integrated with other land uses. It has 3 main objectives: • Increase the contribution of forests and woodlands to Scotland's sustainable and inclusive economic growth • Improve the resilience of Scotland's forests and woodlands and increase their contribution to a healthy and high quality environment • Increase the use of Scotland's forest and woodland resources to enable more people to improve their health, well-being and life chances	The SEA should reflect objectives to promote an increase in the number and use of forests and woodlands.

Material assets

Source	Key objectives	Implications/comments
MATERIAL ASSETS		
European		
The Landfill Directive 1999 Directive 99/31/EC on the landfill of waste	Prevent or reduce negative effects on the environment from the landfilling of waste by introducing stringent technical requirements for waste and landfills.	The SEA should reflect objectives to **increase recycling and reduce the amount of waste**.
The Waste Framework Directive 2008 Directive 2008/98/EC on waste	Prevention or reduction of waste production and its harmfulness. The recovery of waste by means of recycling, re-use or reclamation. Recovery or disposal of waste without endangering human health and without using processes that could harm the environment.	The SEA should reflect objectives that **minimise waste production as well as promote recycling**.
The Urban Waste Water Directive 1991 Directive 91/271/EEC concerning urban waste water treatment	Protect the environment from the adverse effects of urban waste water collection, treatment and discharge, and discharge from certain industrial sectors.	The SEA should reflect objectives to **reduce water pollution.**
The Packaging and Packaging Waste Directive 1994 Directive 94/62/EC on packaging and packaging waste	Harmonise the packaging waste system of Member States and promote recycling.	The SEA should reflect objectives to **minimise the environmental impact of waste and promote recycling**.
EU Management of Waste from Extractive Industries (2006/21/EC)	The purpose of the Directive is to prevent water and soil pollution from the deposition of waste into heaps or ponds and puts emphasis on the long-term stability of waste facilities to help avoid major accidents. The main elements of the Directive are: • Conditions for operating permits. • General obligations concerning waste management. • The obligation to characterise waste before disposing of it or treating it. • Measures to ensure the safety of waste management facilities. • A requirement to draw up closure plans.	The SEA should reflect objectives to **protect soil quality and minimise soil pollution.**

Source	Key objectives	Implications/comments
	• An obligation to provide for an appropriate level of financial security.	
National (Legislation)		
Environmental Protection Act 1990	The Act implements the EU Waste Framework Directive (2008) and includes provisions for improved control of pollution and waste generation arising from certain industrial processes Moreover, the Act places a duty on local authorities, as the primary regulators, to identify and secure the remediation of contaminated land in their respective areas. The Environmental Protection Act comprises the following parts: Part I: Integrated Pollution and Control Part II: Waste Management Licencing Part III: Statutory Nuisances Part IV: Criminal Offences Concerning Litter Part VI: Statutory Notification and Risk Assessment for Genetically Modified Organisms (GMOs) Part VII: Creation of Nature Conservancy Council for England, the Nature Conservancy Council for Scotland and the Countryside Council for Wales.	The SEA should reflect objectives to **reduce pollution**.
The Management of Extractive Waste (Scotland) 2010 Regulations	EU directive 2006/21/EC was transposed in the form of the Management of Extractive Waste (Scotland) 2010 Regulations, also known as 'MEW'. It sets out conditions for granting planning permission for extractive waste areas and waste facilities, along with additional requirements for category A (high risk) waste facilities.	The SEA should reflect objectives to **minimise the environmental impact of waste.**
Waste Management Licencing (Scotland) Regulations 2011 (as amended)	Sets out requirements for the management of waste and related activities with regard to granting site licences and consolidating existing licences.	The SEA should reflect objectives to **minimise the environmental impact of waste.**
National (Policies, Plans, Programmes and Strategies)		
Scotland's Zero Waste Plan (2010)	The Zero Waste Plan presents a vision to minimise waste transport to landfills, promote recycling and enhancing collection methods. The key objective of the Plan is to maximise the economic and environmental opportunities of waste reduction and reuse.	The SEA should reflect objectives to **minimise the environmental impact of waste and promote recycling**.
Planning Advice Note 63: energy from waste	Sets out guidance for planning authorities on proactively planning for waste	The SEA should reflect objectives to **minimise the**

Source	Key objectives	Implications/comments
(2013)	management	**environmental impact of waste and promote recycling**.
A strategy for improving waste data in Scotland (2017)	Sets out a strategy to improve the relevance, quality and availability of data on waste from all sources (e.g. households, commerce and industry). The primary objective of the strategy is to improve waste data strategies in order to enhance Scotland's waste and resources sector.	The SEA should reflect objectives to **minimise the environmental impact of waste and promote recycling**.
National (Legislation)		
Pollution Prevention and Control (Scotland) Regulations 2012 (as amended)	Implements the requirements of the EU Industrial Emissions Directive in Scotland. The Act states that emissions to air, water and land must be considered together, and permits are considered based on the nature of the activity. The Act has been amended several times since 2012.	The SEA should reflect objectives for **reducing air/water/soil pollution.**
Scotland Rural Development Programme (SRDP) 2014-2020	The key purpose of the SRDP 2014 - 2020 is to help achieve sustainable economic growth in Scotland's rural areas and the priorities remains broadly the same as the previous programme: The main priorities are: • Enhancing the rural economy • Supporting agricultural and forestry businesses • Protecting and improving the natural environment • Addressing the impact of climate change • Supporting rural communities	The SEA should reflect objectives for **protecting the environment.**

Appendix 2

Consultation Authorities responses to the Screening/Scoping Report

Consultation Authority	Topic	Comment	Response
HES	Approach to the assessment	The categorisation of Crown Estate Scotland activity will be beneficial in ascertaining where environmental effects are likely.	Noted.
	SEA framework	Content with proposed SEA objective and proposed scoring methodology.	Noted.
	Mitigation and monitoring	Clearly set out actions that will mitigate effects on the historic environment and influence decision making and the plan hierarchy below the plan. Other forms of mitigation such as amending the plan or opting for alternative approaches should also be considered where appropriate.	Noted – see Chapters 5 and 6.
	Reasonable alternatives	Ensuring that environmental effects of alternatives are considered at the Corporate Plan level may aid in targeting the influence of assessment at the appropriate level in the Crown Estate Scotland plan hierarchy, avoiding the need for duplication of assessment at lower levels.	Noted.
	PPS review	The summary and links in Section 3.40 refer to the now superseded Historic Environment Scotland Policy Statement (June 2016). However, we note that appendix 1 refers to the relevant policy. As you are aware, the new Historic Environment Policy for Scotland (HEPS) is a strategic policy document for the whole of the historic environment and is underpinned by detailed policy and guidance.	Updated.
	Environmental baseline	Appropriate for the assessment of the historic environment	Noted.
HES, SEPA, SNH	Consultation period	Agree with 10 week consultation period	Noted.
SEPA	Approach to the assessment	Content with approach	Noted.
	SEA objectives	Suggest minor rephrasing and extension of objectives for water, air, climatic factors and material assets	SEA objectives amended.
	Reasonable alternatives	Content with approach.	Noted.
	Mitigation and enhancement	Support proposals for enhancement of positive effects as well as mitigation of negative effects. It is useful to demonstrate the link between potential effects and proposed mitigation/enhancement measures in the assessment framework	Recommendations for enhancement included.
		Encourage the Environmental Report to be very clear about mitigation measures which are proposed as a result of the assessment. These should follow the mitigation hierarchy (avoid, reduce, remedy or compensate)	Noted.
		The Environmental Report should therefore identify any changes made to the plan as a result of the SEA.	Noted.

Consultation Authority	Topic	Comment	Response
		Where the mitigation proposed does not relate to modification to the plan itself then it would be extremely helpful to set out the proposed mitigation measures in a way that clearly identifies: (1) the measures required, (2) when they would be required and (3) who will be required to implement them. The inclusion of a summary table in the Environmental Report such as that presented below will help to track progress on mitigation through the monitoring process.	The detail of the future mitigation measures will be explored in the Post Adoption Statement.
	PPS review	Include reference to the Land Use Strategy 2016-2021	Included under 'Agriculture'.
		Ensure correct references to RBMP and National Emissions Ceiling Directive.	Updated.
	Material assets	Refer to impact of Crown Estate Scotland activities on assets outwith Crown Estate Scotland control e.g. offshore wind results in impacts on land based assets.	Noted.
	Environmental baseline	AQMA mapping does not represent the real extent of the AQMA, which are typically small areas within local authorities. Note there are 99 automatic monitoring sites for atmospheric pollutants.	Mapping and reference to monitoring sites updated.
		Recommend that consideration is also given to the impact of rural estate management practices on GHG emissions e.g. forestry, agriculture and land management practices. We would also recommend that the section on discussion of pressures (sections 4.57 to 4.59) includes land management practices, and that this discussion is not limited to CES's own activities.	Updated.
		Recommend including consideration of flooding e.g. in relation to agricultural, forestry and rural land management activity impacting on floodplains and the potential of these activities to contribute to natural flood management. Alternatively this could be included in water topic.	Updated
		Text should reflect that material assets includes both built and natural assets.	Updated.
SNH	Mitigation and monitoring	Identifying mitigation to possible significant adverse effects is arguably the most important outcome of the assessment process. We would expect to see a detailed table illustrating what mitigation is proposed; whether this includes specific measures or signposting further consideration of possible mitigation at a lower tier plan; who will be responsible for carrying out the mitigation and by when. The possible residual effects following mitigation should also be identified.	The text on mitigation reflects the early stage of development of the potential mechanisms for delivery.
	Reasonable alternatives	We note that the legal framework for Crown Estate Scotland is set and that consideration of reasonable alternatives will be at the next level down. We welcome the consideration of the options coming out of the consultation on the Rural estates as forming the basis for reasonable alternatives, along with those aspects of the plan which could result in direct or indirect environmental effects.	Noted.
	PPS review	It may be helpful to note that related PPS are often cross cutting. For example, Scotland's National Marine Plan 2015 (NMP) is included in the Water topic but is relevant to most of the	Noted.

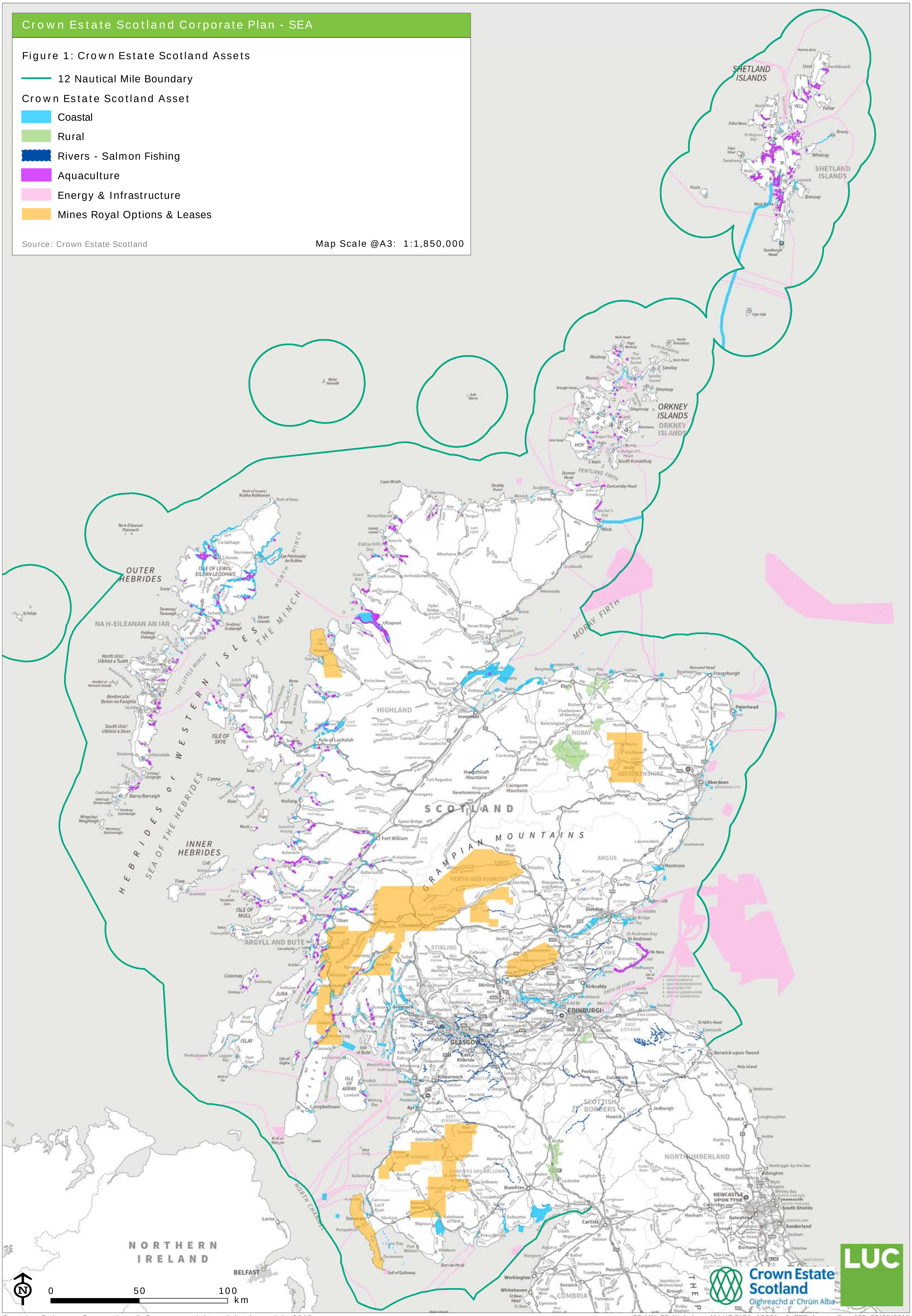
Consultation Authority	Topic	Comment	Response
		other environmental topic areas. Please note that the regional marine plans (under the Marine (Scotland) Act 2010), for Shetland and Clyde are still in development and the planning partnership for Orkney Marine Region is awaiting direction from Scottish Ministers. There is an existing plan for Shetland waters, but this is adopted as supplementary guidance to the Local Development Plan	
	Environmental baseline	Refer to proposed marine SPAs and Nature Conservation MPAs. Ensure correct use of the term 'offshore waters'. Include reference to proposed sites, in particular proposed marine SPAs and Nature Conservation MPAs. Include wider breadth of impacts of climate change. Refer to blue carbon stores under 'soil'. Note the role of erosion of a natural process, and that it is not always negative. Water: Add information on the results of the Marine Strategy Framework Directive Monitoring results Extend the range of implications of climate change. Note the impacts of oil and gas extraction and the role of carbon capture and storage to mitigate effects. Align consideration of geodiversity and landscape with Scotland's National Marine Plan 2015 for marine and coastal elements. Highlight the increasing presence of cruise boats in Scottish waters and associated pressures on the environment and coastal communities.	Updated.

Appendix 3

Baseline maps

Crown Estate Scotland Corporate Plan - SEA

Figure 1: Crown Estate Scotland Assets



CB:MNi EB:Nicholson_M LUC FIG1_10691_r1_CES_Assets_Sco_A3P 22/08/2019

Figure 2: Natural Heritage Designations in Scotland

- 12 Nautical Mile Boundary
- Crown Estate Scotland Asset

Natural Heritage Designations

- National Nature Reserve
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area and Proposed SPA
- Marine Protection Area
- World Heritage Site - St Kilda
- Ramsar

Source: Crown Estate Scotland, SNH

Map Scale @A3: 1:1,850,000

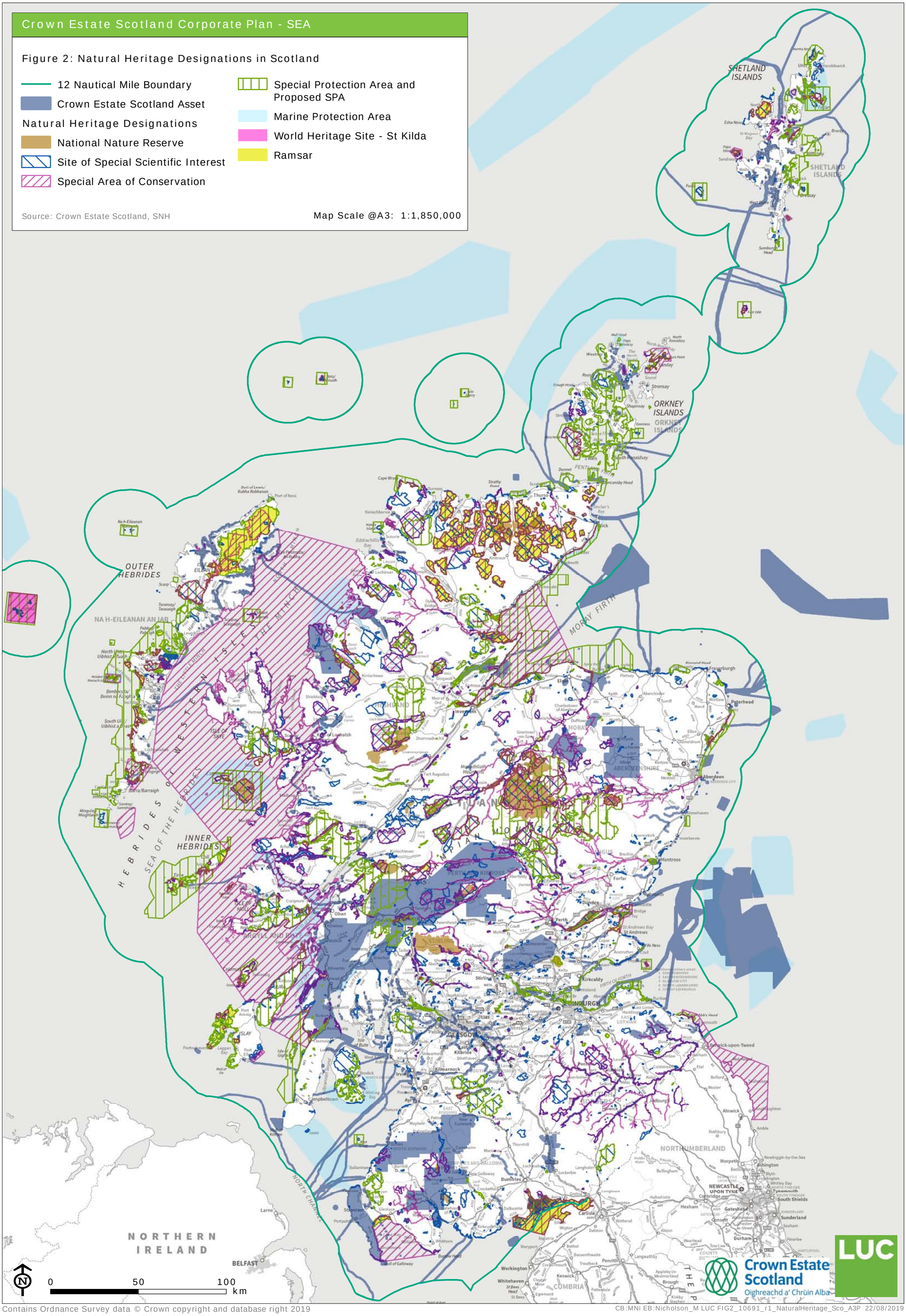


Figure 3: Population Density across Scotland

12 Nautical Mile Boundary

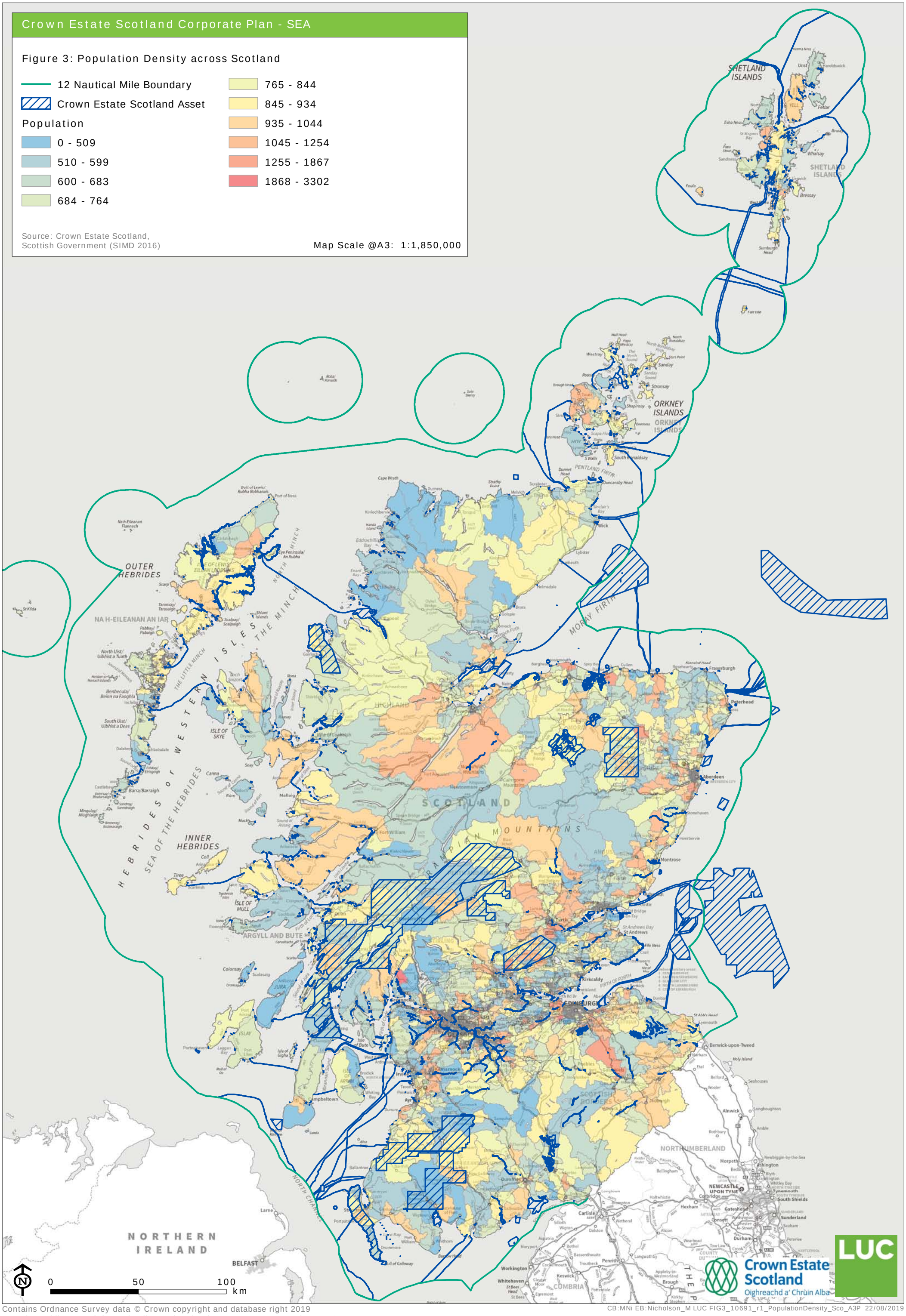
Crown Estate Scotland Asset

Population

0 - 509	765 - 844
510 - 599	845 - 934
600 - 683	935 - 1044
684 - 764	1045 - 1254
	1255 - 1867
	1868 - 3302

Source: Crown Estate Scotland, Scottish Government (SIMD 2016)

Map Scale @A3: 1:1,850,000



CB:MNi EB:Nicholson_M LUC FIG3_10691_r1_PopulationDensity_Sco_A3P 22/08/2019

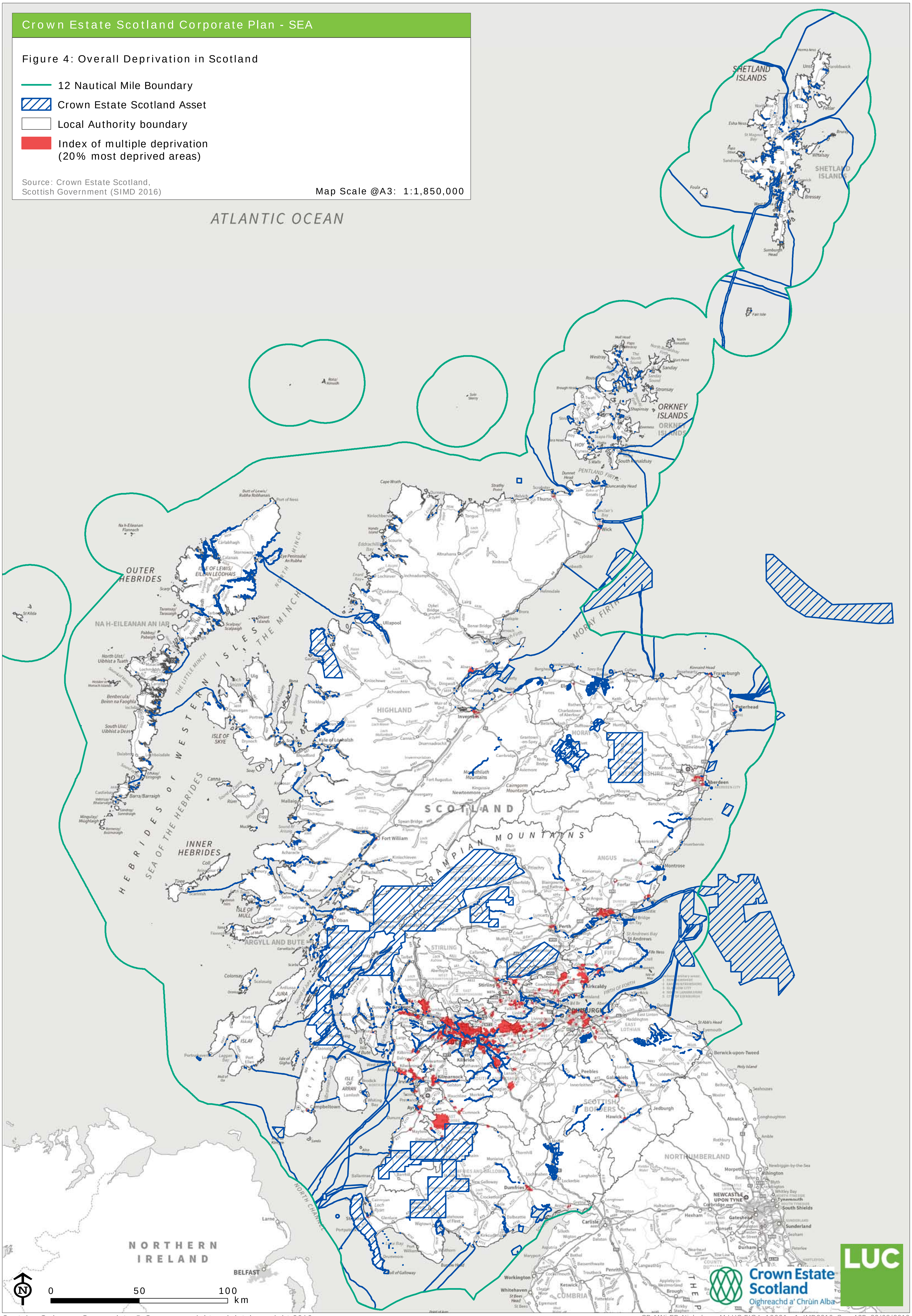


Figure 4: Overall Deprivation in Scotland

CB:MNi EB:Nicholson_M LUC FIG4_10691_r1_IMD2016_Sco_A3P 22/08/2019

Figure 5: Recreational Routes in Scotland

12 Nautical Mile Boundary

Crown Estate Scotland Asset

Recreation

National Cycle Network

Scottish Great Trails*

Country Park

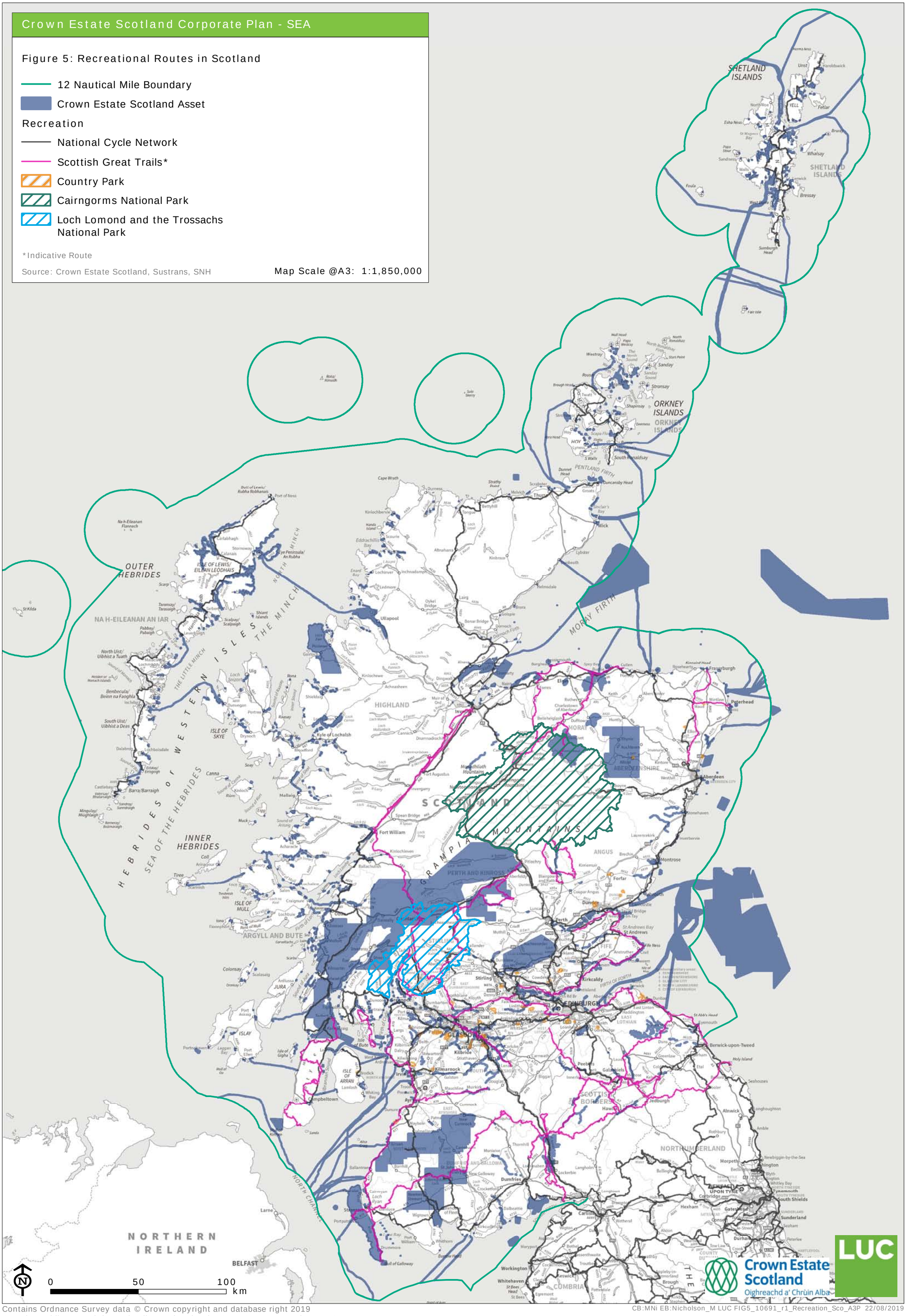
Cairngorms National Park

Loch Lomond and the Trossachs National Park

*Indicative Route

Source: Crown Estate Scotland, Sustrans, SNH

Map Scale @A3: 1:1,850,000



CB:MNi EB:Nicholson_M LUC FIG5_10691_r1_Recreation_Sco_A3P 22/08/2019

Figure 6: Land Capability for Agriculture in Scotland

12 Nautical Mile Boundary

Crown Estate Scotland Asset

Land Capability for Agriculture

Land suited to arable cropping (categories 1-4)

Land suited only to improved grassland and rough grazing (categories 5-7)

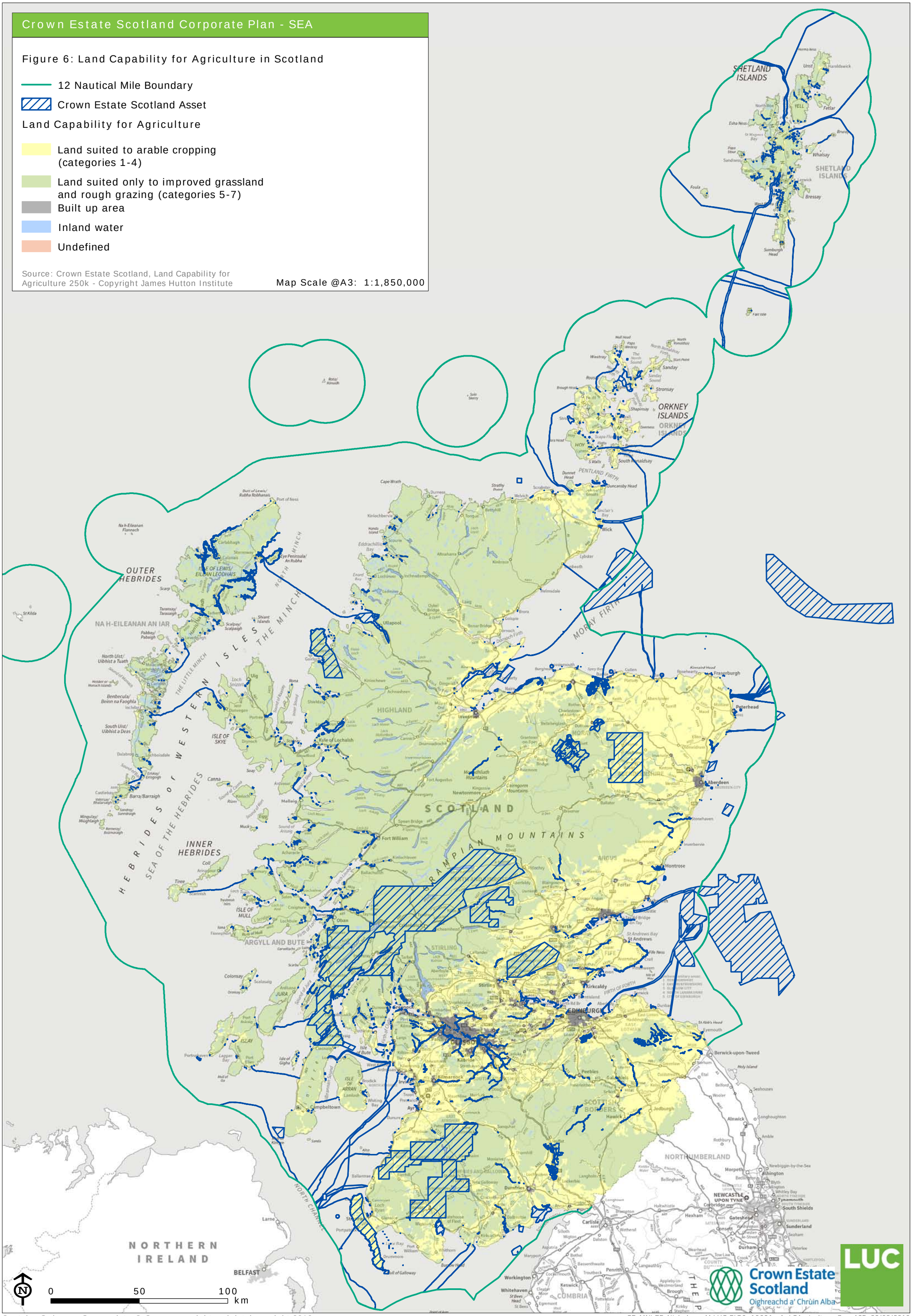
Built up area

Inland water

Undefined

Source: Crown Estate Scotland, Land Capability for Agriculture 250k - Copyright James Hutton Institute

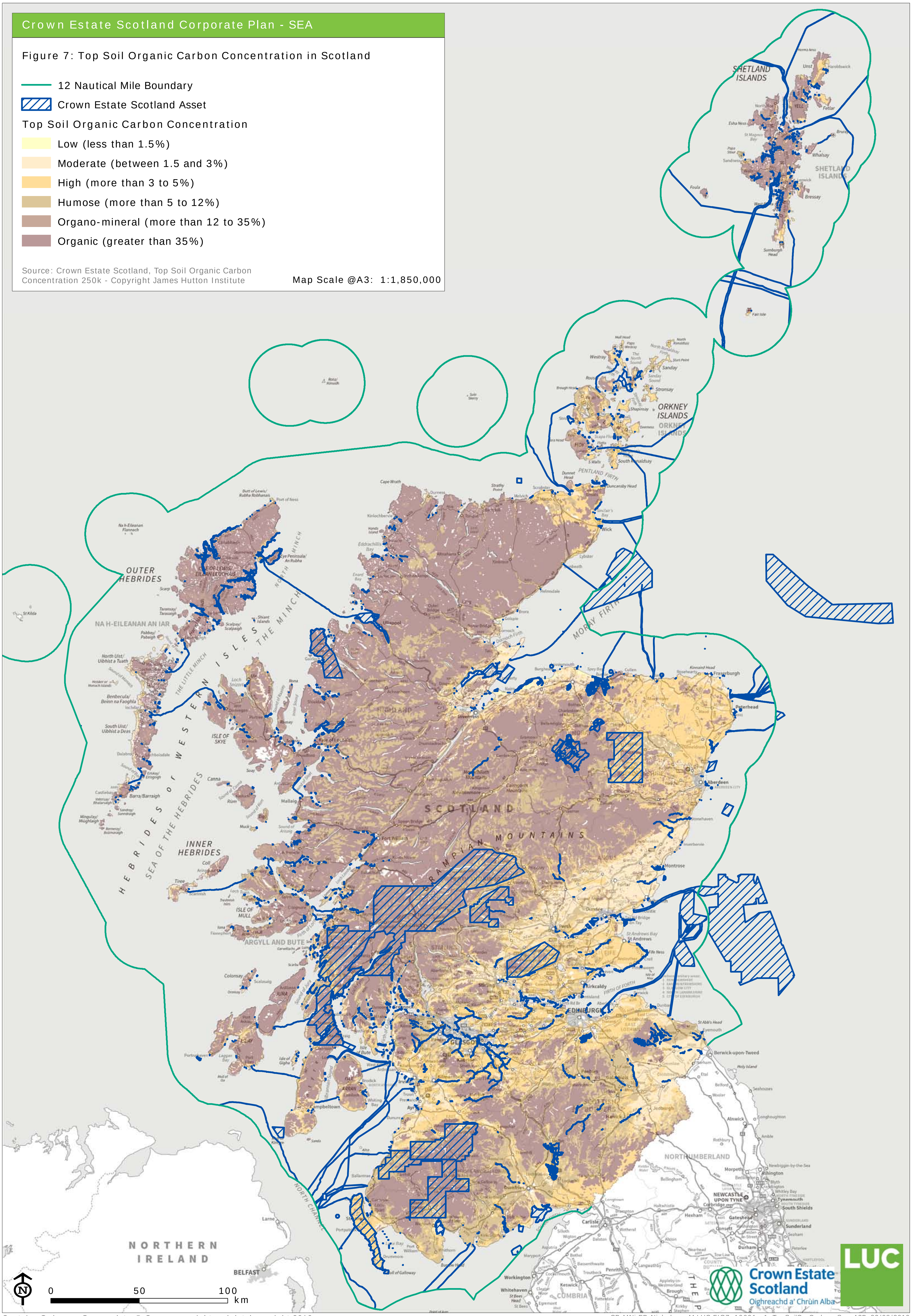
Map Scale @A3: 1:1,850,000



CB:MNi EB:Nicholson_M LUC FIG6_10691_r1_LCAgriculture_Sco_A3P 22/08/2019

Crown Estate Scotland Corporate Plan - SEA

Figure 7: Top Soil Organic Carbon Concentration in Scotland



Source: Crown Estate Scotland, Top Soil Organic Carbon Concentration 250k - Copyright James Hutton Institute

CB:MNi EB:Nicholson_M LUC FIG7_10691_r1_TopSoilOrgCarbon_Sco_A3P 22/08/2019

Figure 8: Water Condition in Scotland

12 Nautical Mile Boundary

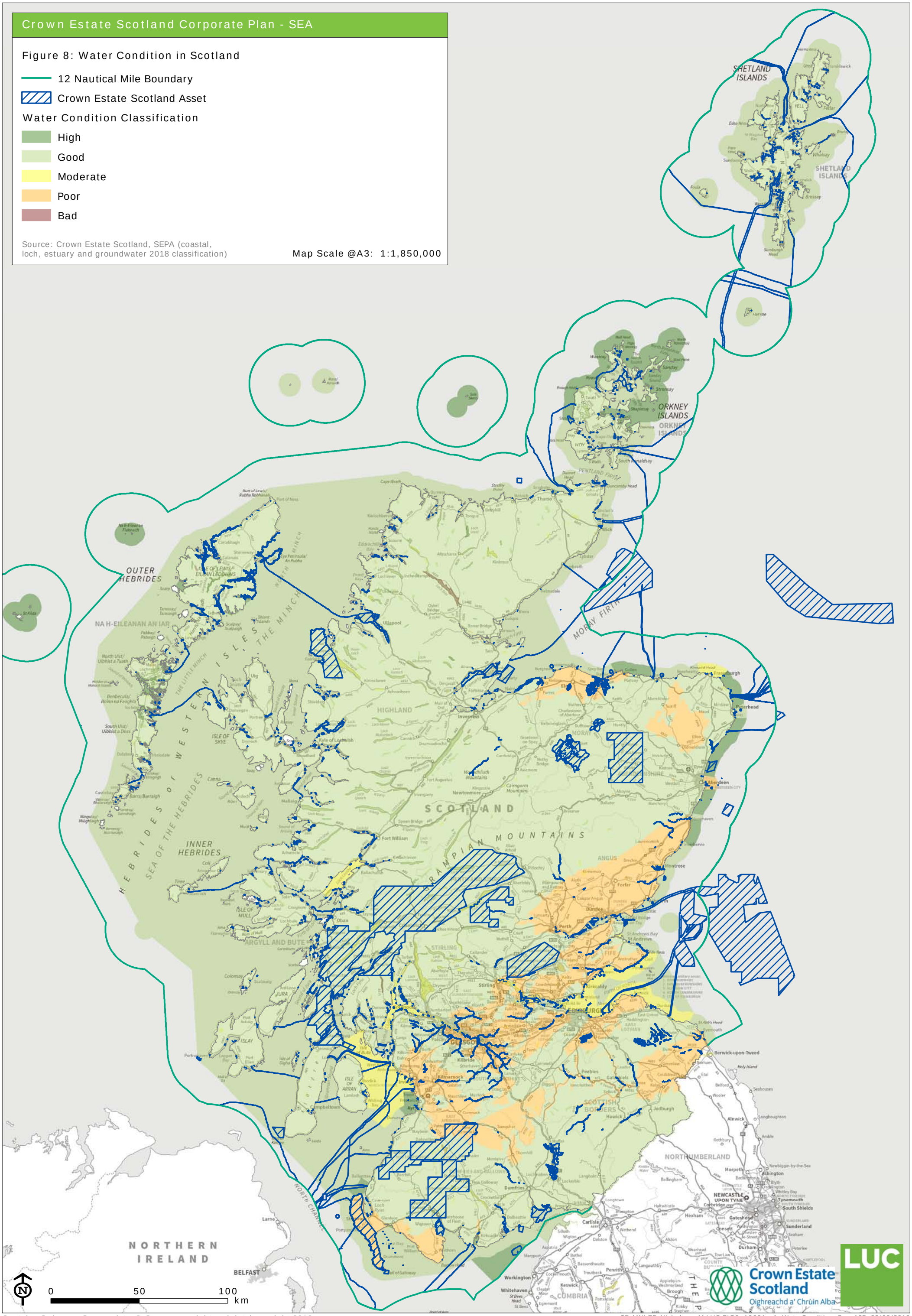
Crown Estate Scotland Asset

Water Condition Classification

- High
- Good
- Moderate
- Poor
- Bad

Source: Crown Estate Scotland, SEPA (coastal, loch, estuary and groundwater 2018 classification)

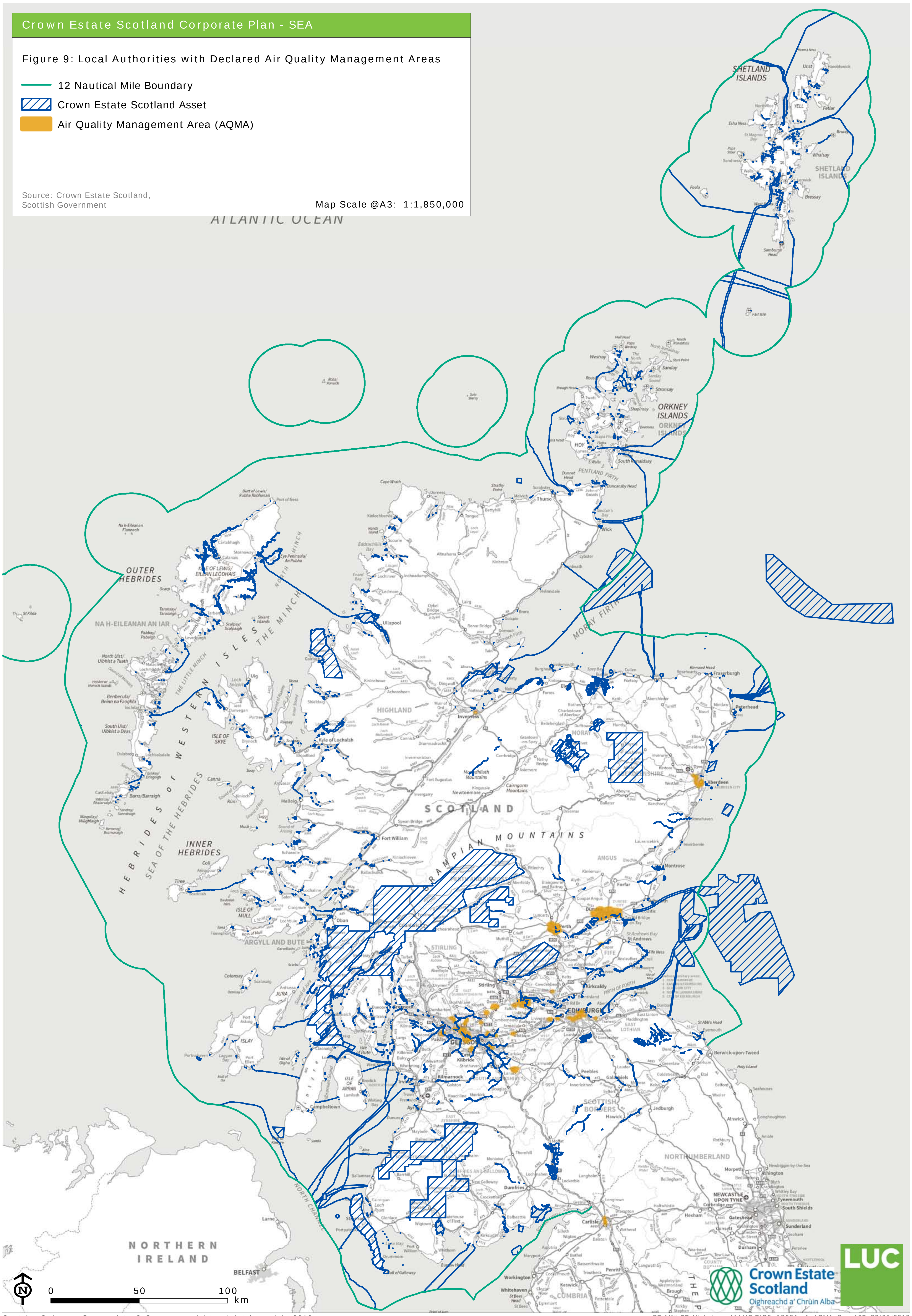
Map Scale @A3: 1:1,850,000



CB:MNi EB:Nicholson_M LUC FIG8_10691_r1_WaterCondition_Sco_A3P 22/08/2019

Crown Estate Scotland Corporate Plan - SEA

Figure 9: Local Authorities with Declared Air Quality Management Areas



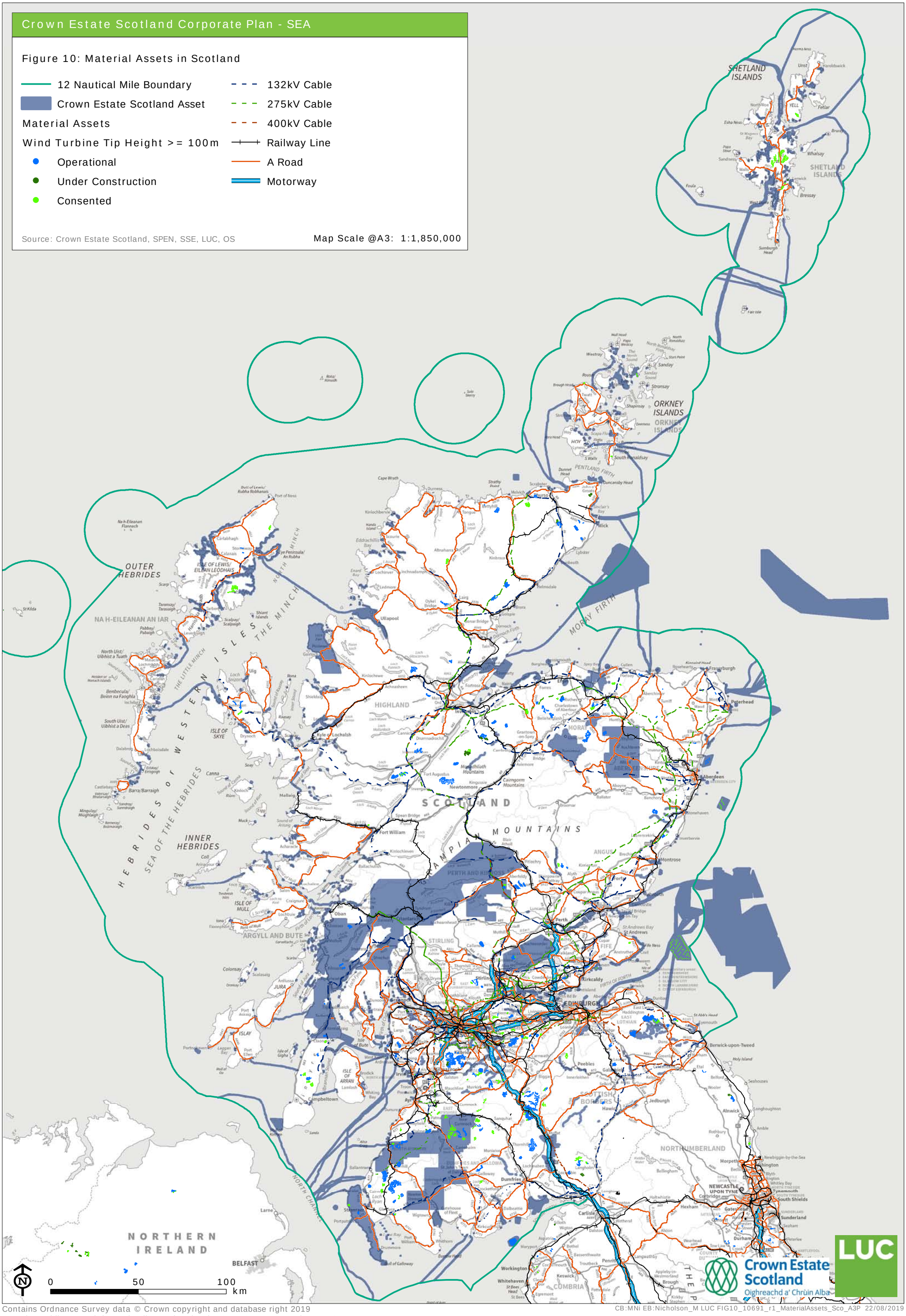
CB:MNi EB:Nicholson_M LUC FIG9_10691_r1_AQMA_Sco_A3P 22/08/2019

Figure 10: Material Assets in Scotland

- 12 Nautical Mile Boundary
- Crown Estate Scotland Asset
- Material Assets
- Wind Turbine Tip Height >= 100m
  - Operational
  - Under Construction
  - Consented
- 132kV Cable
- 275kV Cable
- 400kV Cable
- Railway Line
- A Road
- Motorway

Source: Crown Estate Scotland, SPEN, SSE, LUC, OS

Map Scale @A3: 1:1,850,000



CB:MNi EB:Nicholson_M LUC FIG10_10691_r1_MaterialAssets_Sco_A3P 22/08/2019

Figure 11: Cultural Heritage Designations in Scotland

- 12 Nautical Mile Boundary
- Crown Estate Scotland Asset

Cultural Heritage

- Listed Building (Grade A)
- Garden and Designed Landscape
- Conservation Area
- Battlefield
- World Heritage Site
- Scheduled Monument

Source: Crown Estate Scotland, Historic Scotland

Map Scale @A3: 1:1,850,000

ATLANTIC OCEAN

SHETLAND ISLANDS

ORKNEY ISLANDS

OUTER HEBRIDES

NA H-EILEANAN AN IAR

INNER HEBRIDES

HIGHLAND

SCOTLAND

GRAMPIAN MOUNTAINS

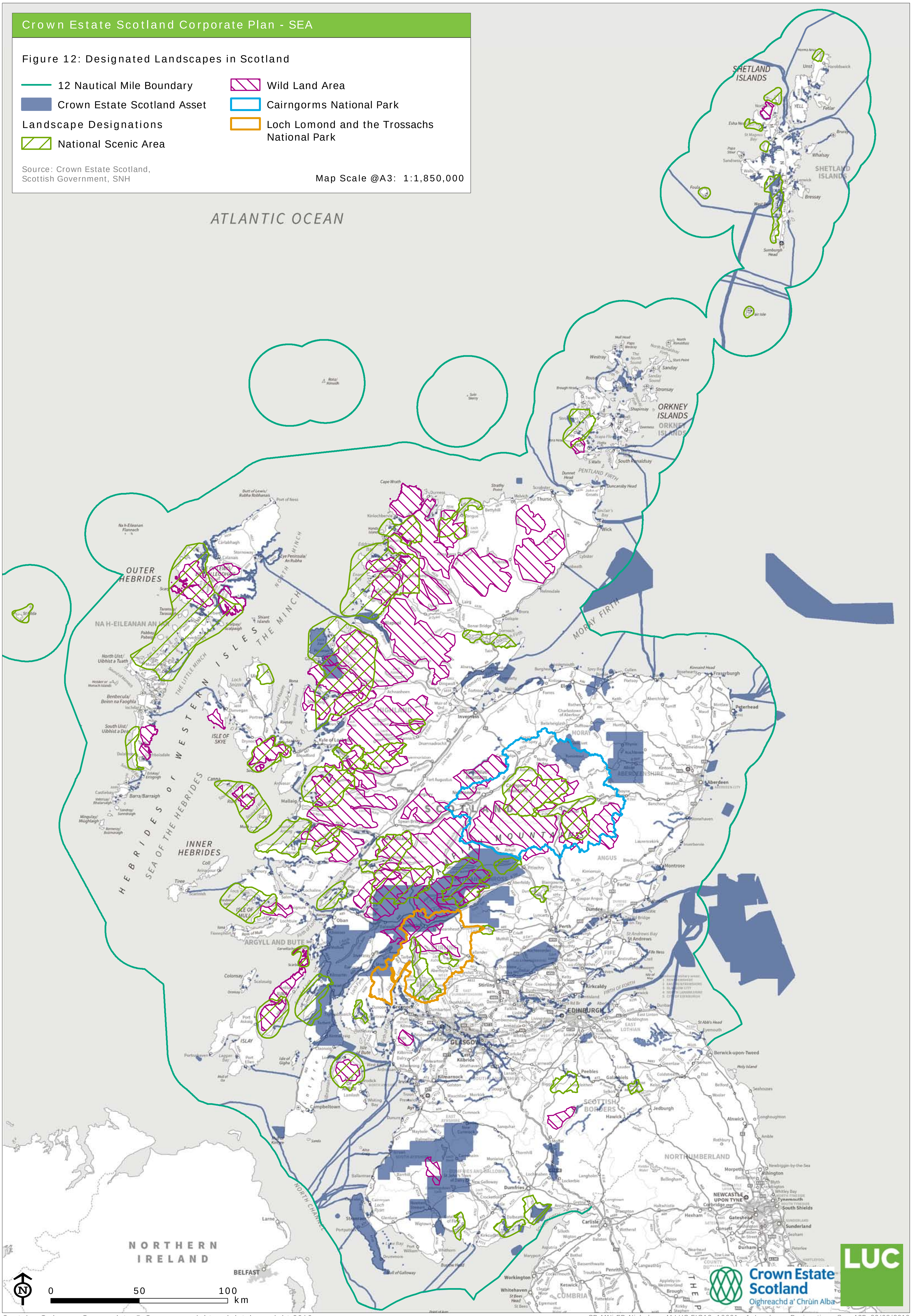
NORTHERN IRELAND

0 50 100 km

Crown Estate Scotland
Oighreachd a' Chrùin Alba

LUC

CB:MNi EB:Nicholson_M LUC FIG11_10691_r1_CulturalHeritage_Sco_A3P 22/08/2019



CB:MNi EB:Nicholson_M LUC FIG12_10691_r1_LandscapeDesignations_Sco_A3P 22/08/2019

Appendix 4

Draft Corporate Plan content as screened for the SEA

This table summarises the results of the initial screening approach applied to the actions and targets within the Crown Estate Scotland Draft Corporate Plan 2020-2023. This approach was applied in order to identify those aspects of the Draft Corporate Plan which would result in potential environmental effects. Actions which result in 'Opportunities for development' or 'Investment' were scoped into the assessment.

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
1	Help create and deliver overarching vision for Scotland's blue economy, in line with Scottish Ministers' purpose	Overarching vision developed with stakeholders								
2	Invest to support blue economy expansion	Opportunities identified and commitment in place, as part of wider investment strategy								
3	Deliver excellent tenant service and enable access to seabed to support established and emerging sectors	High level of tenant satisfaction								
4	Invest in measures to remove sector-wide barriers to further offshore wind investment • Work with industry and stakeholders to accelerate and de-risk development (e.g. radar, O&M, grid, consenting etc as appropriate) • Work with Marine Scotland in relation to timing of subsequent leasing cycles • Undertake leasing as	Tenant and stakeholder surveys show support for our approach Decision taken on future leasing cycles Ongoing capital investment by developers as projects continue to progress								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	required to help ensure Scottish deployment aspirations are achieved									
5	Enable access to seabed for new offshore wind development, supporting project pipeline and supply chain	First cycle of ScotWind offshore leasing completed Option Agreements in place								
6	Work in partnership to develop existing and emerging technologies that offer significant potential value to Scotland (including infrastructure, wave & tidal, CCS (carbon capture, and storage) and floating offshore), and identify new opportunities	Progress in new opportunities demonstrated. This may include: Further activity to address barriers to floating OW development Programme of support rolled out to progress local energy systems (including incorporation of emerging technologies)								
7	Help ensure Scotland attracts offshore wind inward investment and realises socio-economic benefits through: • Providing leasing for a pipeline of projects and appropriately structured agreements (Scotwind) • Investing resource and expertise (e.g. contribution to SOWEC) • Supporting delivery of Scotland's Offshore Wind Sector Deal	Leasing agreements in place to ensure a pipeline that will help Scotland achieve socio-economic benefits from offshore wind Offshore Wind Sector Deal delivery in Scotland progressed								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	aspirations									
8	Contribute to the development of sustainable finish production through: • Supporting research & development (R&D) on sustainable finfish production ensuring efficient and responsible allocation of seabed • Working with regulators and industry in relation to location of finfish sites • Identifying learnings from Local Management Pilots Projects (see Section 4.5s) and share with others • Providing guidance to developers as 'first point of contact' to assist in progressing optimal sites and minimising burden on stakeholders later in process	Knowledge database developed (encompassing regulatory / policy / stakeholder considerations, natural heritage, marine user, and local terrestrial interest) that can inform pre-application consultation with and by prospective developers Suite of projects that contribute to sustainable finfish production delivered (in partnership with Marine Scotland) Work collaboratively with regulators and industry to have a robust, tested protocol in place to measure lice levels on wild fish in areas where farming takes place Collaborate with key stakeholders to agree an up-to-date definition of (sea-lice) management areas. This can then be applied to current and future developments. Lease requirements strengthened (e.g. requiring tenant to participate in area management agreements to enable effective implementation of								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
		Environmental Management Plans).								
9	Strengthen economic feasibility of shellfish opportunities	Critical Mass pilot for either Argyll & Bute or Highland commissioned (tbc following current pilot)								
10	Contribute to Government review of seaweed harvesting regulatory regime	Agreed changes relating to our role implemented. Support provided for any specific projects required to inform recommendations								
11	Improve co-existence between tenants to help promote higher standards both within and across sectors and help improve collaboration and potential business success	Informed advice, guidance and agreements (e.g. Special Purpose Vehicles) developed to facilitate co-existence and further collaboration of marine businesses. Secure at least two further area-based multi-trophic development agreements								
12	Revise leasing terms to ensure lasting value for Scotland from seabed leasing for aquaculture	Root & branch review of all aquaculture sectors complete and implemented, with recommendations on how to revise terms of future leasing to appropriately reflect the value of seabed and changing status of different industries								
13	Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of	Coastal Asset Strategy implemented. New agreements and renewals in place according to agreed timetables. Local partnership projects in place								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development.	(see action 33)								
14	Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver wider environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy, with a focus on: • Ports and harbours • Boat-based tourism • Coastal development land	Capital committed, in line with wider strategy A pipeline of projects for investment agreed and under development								
15	Support local regeneration and sustainability, particularly in coastal areas, by rolling-out package of support for projects that promote sustainable development and regeneration	Package launched in 2020 the Year of Coasts and Waters (also see action 22)								
16	Improve business processes to ensure an effective and efficient service for our tenants, using IT solutions to support the development of high-quality tenant service and improved communication with our tenants	Communications plan developed and implemented (aligning with wider changes to local partnership working and community engagement, see action 34); systems and processes developed and in place to support Coastal Asset Plan and investment								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	and stakeholders.	activity (actions 13 and 14)								
17	Review charging in relation to coastal infrastructure and facilities to fully align with our duty under the Act to promote sustainable development	Review complete and summary of charges (and rationale) published								
18	Complete the voluntary registration of uncontested Crown foreshore and continue to progress title conflicts in order to protect Crown Estate Scotland Assets and contribute to Scottish Government targets on Land Registration.	Uncontested foreshore registration complete.								
19	Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models.	Land and property values increased								
20	Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial).	Land and property values increased.								
21	Explore and further opportunities for joint development activities with preferred partners, including coastal regeneration projects, as part of wider	Strategic partnership working in place Investment strategy implementation in progress								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	investment strategy									
22	Support, promote and facilitate more sustainable, financially viable and resilient agricultural businesses through farm restructures, ongoing investment and by working with tenants to enable future farm business planning in response to changes in farm policy / economics..	Minimum of least three new entrants or facilitation of succession to next generation Integrated Farm Management Business Plans promoted across core holdings At least three demonstrator projects with tenants in place Complete tenancy restructures / reorganisations NFUS's Joint Venture programme rolled-out with minimum three uptakes								
23	Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.	Natural Capital approach embedded by: Delivering programme of support including workshops at each rural estate Working with pilot projects to undertake assessments Hosting conference showcasing national and international best practice Completing Natural Capital assessment of Scottish Crown Estate completed, detailing Crown Estate Scotland dependencies and impacts on natural capital Continuing work with agricultural								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
		tenants and other partners to embed Natural Capital approach in business management.								
24	Carry out research and other initiatives to support long-term sustainability of the wild fisheries sector	Measures to help address wild salmon population decline implemented including research projects Protocol in place to measure lice levels on wild fish in fish farming areas (see action 8)								
25	Deliver Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).	Conditions survey actions complete Initial feasibility completed and at least one renewable energy project progressed (potentially with joint investment by community) Complete sales of agricultural units / land in line with investment strategy (see Section 5) to meet budget target to raise capital for reinvestment. Capital committed to new or existing assets including infrastructure improvements and woodland creation in line with budget targets Natural Capital approach embedded (see action 23) Refurbish at least three residential properties Residential energy efficiency standards improved								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
26	Support innovation through co-investing with tenants / partners	Innovation challenge fund developed and launched (fund will be designed to open up opportunities to wide range of tenants / partners)								
27	Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.	Estate plans in place following best practice engagement (aligning with Scottish Government's Guidance on Engaging Communities in decisions relating to land and related Scottish Land Commission advice) Opportunities for rural housing development / housing improvements identified								
28	Investigate new market opportunity for shellfish, for example, product and market opportunities for cultivated bivalve shellfish in biotech as well as food	Project completed and recommendations shared with industry								
29	Investigate new market opportunity for economically feasible sustainable seaweed utilisation, particularly through cultivation	Project established, such as piloting a cultivated seaweed value chain, incorporating cultivators, food, marine biotech, energy and digestate utilisation to confirm economic viability								
30	Support new ways to prevent marine litter	Trial two new methods / approaches of working with key sectors e.g. aquaculture to prevent litter entering								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
		Scotland's seas								
31	Contribute to Scottish Government valuation guidance for managers of the Scottish Crown Estate	Written guidance available, helping to equip new managers.								
32	Develop a community engagement strategy drawing on best practice and guidance from, for example, the Scottish Land Commission	Strategy developed and implemented (as part of wider refresh of local partner engagement, see action 34) Potentially include supporting piloting of Local Place Plans as in Planning Act 2019								
33	Support and encourage local empowerment by • Helping implement Local Management Pilots Projects • Assessing Pilots process and developing recommendations to inform how opportunities in the Act may be realised • Supporting range of other partnership projects including, for example, Local Place Plans	Pilot projects implemented Review complete; recommendations shared to inform future devolution through the Act Range of other projects that deliver sustainable development in progress								
34	Ensure decision-making processes and tools support	Tools and processes developed through the Value Project embedded								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	delivery of wider value	and used to inform external reporting, engagement and communication Embed Islands Communities Impact Assessment in strategic decision-making								
35	Embed Health & Safety framework and culture of excellence across all business areas to ensure Crown Estate Scotland is an exemplar in H&S management.	Achieve appropriate accreditation for H&S management Ensure all relevant staff complete / refresh IOSH Managing Safely (or equivalent) training course								
36	Embed the duties in the Act and ensure ongoing alignment with Scottish Government policy through further development of processes and project management tools. These will support / assess / monitor and evidence Crown Estate Scotland activity, for example: • individual transactions; • corporate plan implementation,; • policy alignment; and • legislative compliance as new requirements come into force. This would include duties relating to furthering sustainable	The Value Project processes and guidance developed and in use across the organisation Further changes to decision-making implemented to ensure alignment with the Act Tools embedded and used to inform external reporting and communication SEA monitoring plan implemented								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	development, regeneration, social well-being etc. as per Section 7 of the Scottish Crown Estate Act.									
37	Enhance our communications in line with best practice guidelines, including digital communications, to help deliver excellent tenant service and wider transparency	Review of digital communications complete Communications strategy implemented, including more bespoke tenant communications High levels of awareness and transparency evidenced in tenant and stakeholder feedback								
38	Refresh working practices relating to tenant and local partner engagement (taking into account the recommendations from the 2019-20 review of managing agents)	Priority recommendations implemented Strengthened local engagement approach in place Community engagement strategy in place								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
39	Further strengthen governance and data management by: • Embedding and implementing Records Management Plan and working towards reassessment • Implementing recommendations from the 2019-20 independent review of Board effectiveness • Conduct a review of corporate governance (including reporting) and implement any recommendations • Develop guidance and protocols for access and use of records for other managers • Progress digitalisation of records	Annual performance reports demonstrating progress published on our website Evidence submitted to Keeper of National Records of Scotland to support request for reassessment Recommended actions complete Review by internal audit complete Recommendations implemented and report submitted to Audit & Risk Committee Guidance and protocols in place and workshops/ support rolled out as required Action plan with targets developed and implemented								
40	Land registration progressed to contribute to Scottish Government targets	Voluntary registration of rural assets and of uncontested foreshore complete								
41	Implement our People Strategy aligned with Fair Work principles	Changes from review of balance of in-house / outsourced support								

Number	Action	Potential business plan target	Facilitating access to assets within framework of existing plans and strategies	Partnership working	R&D funding	Opportunities for development	Investment	Internal processes	Review pilots	Develop guidance
	of security, respect, effective voice, opportunity and fulfilment. This will include: • Building the resilience, capacity and capabilities of our workforce • Developing new ways to ensure staff can influence decision-making • Carrying out an annual staff survey and implementing subsequent action plan • Involving the recognised trade union, PCS, in decisions relating to staff • Strengthening our commitment to equality and diversity	implemented Competency frameworks in place supported by learning and development programme Staff survey shows employees can influence decision-making Staff survey shows high level of engagement and job and employer satisfaction Equality and diversity monitoring in place; regular training delivered								
42	Secure new alternative office accommodation based on 'smart working' principles and need for increased external engagement / partnership working	Suitable accommodation secured and relocation complete								

Appendix 5

SEA assessment matrices and summary table of SEA scores

Key to SEA Scores

The use of colour coding in the matrices will allow for likely significant effects (both positive and negative) to be easily identified, as shown in the key below.

++	The option is likely to have a **significant positive** effect on the SEA objective(s).
++/-	The option is likely to have a mixed effect (**significant positive** and **minor negative**) on the SEA objective(s).
+	The option is likely to have a **positive** effect on the SEA objective(s).
0	The option is likely to have a **negligible** or no effect on the SEA objective(s).
-	The option is likely to have a **minor negative** effect on the SEA objective(s).
--/+	The option is likely to have a mixed effect (**significant negative** and **minor positive**) on the SEA objective(s).
--	The option is likely to have a **significant negative** effect on the SEA objective(s).
?	It is **uncertain** what effect the option will have on the SEA objective(s), due to a lack of data.
+/- or ++/--	The option is likely to have a **mixture of minor positive and minor negative** effects or a **mixture of significant positive and significant negative** effects on the SEA objective(s).

The Action matrices are grouped according to the Strategic Objective to which they relate. Please note that Action 15 is relevant to both Strategic Objectives 1 and 4.

Strategic Objective 1 - Support the sustainable expansion of Scotland's blue economy, focussing on marine and coastal development

Action 2 - Alternative 1

Action 2: Invest to support blue economy expansion
Alternative 1: Port infrastructure supporting offshore wind

Spatial extent and scale of asset affected: This would take place at selected coastal locations, with the expansion of existing port facilities.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for development of port infrastructure to result in interaction with designated and sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	Reflecting the environmental protections which apply to port infrastructure to support offshore wind in relation to HRA and EIA. While significant negative effects could be avoided, it is likely that, due to the nature of these sites, minor negative permanent effects may remain as a result of any development.	-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		The creation of port infrastructure to support offshore wind could have minor localised permanent impacts on wildlife corridors and fragmentation of ecological areas and green spaces, as a result of increased development. However this development will take place in a limited number of locations and overall impacts are identified as negligible.	0
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	The development of port infrastructure to support offshore wind could result in localised short and long term effects on population and human health as a result of construction impacts and operation of the port facilities. As this development will take place in a limited number of locations, the overall impacts are identified as negligible.	0
	Improve the health and living environment of people and communities.		The development of port infrastructure is may have minor indirect positive impacts on the living environments of people and communities through the creation of jobs. Overall, a minor positive effect is identified.	+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The development of port infrastructure to support offshore wind could result in local long term impacts on the quality, quantity and connectivity of publicly accessible and open spaces, however the scale of this effect is anticipated to be localised and therefore a negligible effect is identified.	0
Soil	Protect valuable soil resources, including carbon soils and best and most versatile	Coastal erosion is an issue for some areas of coastline. Coastal areas contain a number of rare coastal soils ranging from calcareous	The development of port infrastructure to support offshore wind energy may have significant environmental impacts on fragile coastal soils. Depending on the scale of the development, localised permanent impacts on soil may arise.	0

Action 2: Invest to support blue economy expansion **Alternative 1:** Port infrastructure supporting offshore wind **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
	agricultural land.	environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	However, reflecting environmental protections put in place to safeguard designated or sensitive environments a negligible effect is anticipated. This assumes that proportionate environmental assessment is employed to protect valuable soil resources.	
	Reduce vacant and derelict land and buildings.		The proposed development of port infrastructure may also include the establishment of shore-based operation and maintenance facilities. Based on Scottish Planning Policy and the relevant LDP, this action could involve the potential redevelopment of vacant and derelict land and buildings through increased development. However due to the limited number and extent of locations where this may take place, a negligible but uncertain effect is identified.	0?
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Development of port infrastructure in coastal areas may lead to moderate increases, or a series of minor increases, in water pollution due to the industrial activities associated with this type of development. The development will take place at a limited number of locations and impacts on the water environment are controlled through regulation such as CAR. Therefore negligible effects are identified.	0?
	Avoid and reduce flood risk both presently and taking into account climate change.		The development of port infrastructure is could indirectly impact on flood risk as a result of the location and design of the development, however due to the limited locations where this development could take place, and reflecting the requirement for significant infrastructure projects to be subject to EIA and a negligible effect is anticipated.	0
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	A very limited number of potential port development locations fall within Air Quality Management Areas (AQMA), although a number of port locations are within local authorities with AQMA. However, due to the likely scale of air quality impacts from port development and the limited number of locations in which these may occur, and the need for infrastructure projects over certain size thresholds to be subject to EIA a negligible effect is identified.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.		The investment in port infrastructure to support offshore wind will not directly improve air quality. As such, a negligible effect is identified.	0
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and	The impacts of climate change will impact on all areas of Scotland. The impacts of sea level rise resulting from climate change will be particularly	The development of port infrastructure would indirectly support the development of renewable energy development. This does not directly contribute to avoiding increases in greenhouse gas emissions, and a negligible effect is anticipated.	0

Action 2: Invest to support blue economy expansion **Alternative 1:** Port infrastructure supporting offshore wind **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
	land use change including agriculture and forestry.	significant in coastal locations where port development would take place. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.		
	Support actions which contribute to targets for reducing greenhouse gas emissions.		The development of port infrastructure to support offshore wind is anticipated to make a significant positive contribution to actions which contribute to targets for reducing greenhouse gas emissions. This development would facilitate the Scottish Governments renewable energy targets. A significant positive effect is identified.	++
	Support climate change adaptation.		The development of port infrastructure would indirectly facilitate the development of offshore wind however this does not directly support climate change adaption and a negligible effect is identified.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	The development of port infrastructure to support offshore would take place along 590 km^2 of Scotland's foreshore. There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Reflecting the planning policy put in place to conserve and, where appropriate, enhance historic marine assets there is unlikely to be a significant adverse effect on designated elements of the historic environment, or their setting. There is, however, potential for minor impacts as a consequence of direct or indirect effects on undesignated and currently historic assets and their setting.	0/-
	Improve the quality of the wider built environment.		The development of new port infrastructure could have minor positive or negative effects on the quality of the wider built environment.	-/+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks,	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas	Most implemented projects are unlikely to have a significant effect on landscape and seascape character. It is, however, possible that some implemented projects could have a negative impact on landscape and / or seascape character, particular	0/-

Action 2: Invest to support blue economy expansion **Alternative 1:** Port infrastructure supporting offshore wind **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
	geoparks, wild land, open spaces, parks and gardens and their settings.	containing some form of coastal or marine element.	where they are located within or close to a National Scenic Area or locally sensitive area of coastline.	
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Based on the environmental protections put in place to safeguard geological areas of national, regional and international importance. The overall effect is anticipated to negligible.	0
Material Assets	Avoid adversely impacting on material assets.	The development of port infrastructure to support offshore would take place along 590 km^2 of Scotland's foreshore. It is unlikely that there would be any interaction with designated or sensitive landscapes.	No negative effects are identified on the material assets within the coastal assets. As port infrastructure to support offshore wind is unlikely to adversely impact material assets, a negligible effect is anticipated.	0
	Enhance material assets and support the sustainable use and management of existing material assets.		Positive effects are identified for the development of material assets, particular facilitating facilities to support renewable energy development.	+

Action 2 - Alternative 2

Action 2: Invest to support blue economy expansion
Alternative 2: Deep water facilities for cruise liners

Spatial extent and scale of asset affected: This would take place at selected coastal locations, with the expansion of existing port facilities.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for the development of deep water facilities for cruise liners to interact with designated or sensitive areas in the marine environment. There are 18 Nature Conservation Marine Protected Areas which lie within Crown Estate Scotland's assets. A significant amount of coastal SAC and Ramsar sites lie within Crown Estate Scotland's coastal assets. There are also 11 offshore SACs contained within Crown Estate Scotland's assets as well as a number of internationally important marine species and seabirds. Cruise liners can acts as a vector for non-native and invasive species which are largely transported through ship ballast water.	Existing environmental protections, particularly EIA and HRA, may avoid significant negative effects associated with the development of deep water facilities for cruise liners on the aquatic environment. However, due to nature of these sites, minor negative and permanent effects may remain. Additionally, this development would take place in a small number of selected locations. As such, these effects are likely to be localised.	-?
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		The development of deep water facilities for cruise liners has the potential to increase fragmentation of ecological areas and green spaces and have localised, permanent effects. However, as this development is anticipated to progress at a limited number of locations, it is likely that overall effect would be negligible.	0
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	Development of deep water facilities could result in localised short and long term effects on population and human health as a result of construction impacts and operation of the port facilities. As this development will take place in a limited number of locations and overall impacts are identified as negligible.	0
	Improve the health and living environment of people and communities.		The creation of new deep water facilities may have an indirect, minor positive effect in the local area through the provision of economic benefits to local communities through increases in tourism and industry where these facilities are put in place.	+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The creation of deep water facilities is unlikely to have a significant effect on the quality, quantity and connectivity of publicly accessible open space. It is possible that minor benefits would result where public realm enhancements are undertaken as part of the development of deep water	+

Action 2: Invest to support blue economy expansion **Alternative 2:** Deep water facilities for cruise liners **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
			facilities.	
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for assets located within coastal communities. Approximately 12% of Scotland's coast is considered to be erosional. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland. Dredging activities may also be necessary to avoid sedimentation and maintain water depth.	Deep water cruise facilities may have significant effects on fragile coastal soils. However, as this development would be carried out at a limited number of locations, minor adverse effects are identified. Dredging activities could also impact upon sensitive and valuable sediments.	-
	Reduce vacant and derelict land and buildings.		Based on Scottish Planning Policy and the relevant LDP, this action could involve the potential redevelopment of vacant and derelict land and buildings through increased development. However due to the limited number and extent of locations where this may take place, a positive but uncertain effect is identified.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Activities associated with port maintenance, such as dredging, may impact upon water quality through the resuspension of sediments. Moderate increases, or a series of minor increases, in water pollution may also occur due to the industrial activities associated with this type of development. However, as this development would only occur at a selected number of locations and reflecting the requirements for environmental assessment through EIA and Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), the overall effect is identified as negligible but uncertain.	0?
	Avoid and reduce flood risk both presently and taking into account climate change.		The development of deep water facilities could indirectly impact on flood risk as a result of the location and design of the development, however due to the limited locations where this development could take place, and reflecting the requirement for significant infrastructure projects to be subject to EIA a negligible effect is anticipated.	0?
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	The development of deep water cruise facilities may contribute to air pollution, particularly through their impact on sea and road transport. The fuel composition of larger sea vessels release significant air pollutants including SOX, NO_x.	Deep water cruise facilities are anticipated to occur in a limited number of locations. As such, this may result in permanent, localised effects. However, if the development exceeds a certain scale, it may be subject to EIA which will require the consideration of likely significant effects on air quality. Overall, a negligible/minor adverse effect is identified.	0/-

Action 2: Invest to support blue economy expansion **Alternative 2:** Deep water facilities for cruise liners **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
	Improve air quality and reduce levels of nuisance associated with poor air quality.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee and the City of Aberdeen, which includes or in close proximity to the port areas.	The development of deep water cruise facilities will not directly improve air quality. A negligible effect is identified.	0
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The impacts of climate change will impact on all areas of Scotland. The impacts of sea level rise resulting from climate change will be particularly significant in coastal locations where deep water development would take place. There is also a risk of more extreme weather events (e.g. sea surges and storms) which may have significant impacts on larger coastal ports. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	The development of deep water cruise facilities may indirectly contribute to greenhouse gas emissions, particularly through their impact on sea and road transport. The fuel composition used by cruise liners emits a significant amount of greenhouse gases such as CO_2 and sulphur oxides. While it may be possible to mitigate significant negative effects, the overall effect is identified as a minor negative.	-
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This type of development would not directly support actions to reduce greenhouse gas emissions. Overall, a negligible effect is identified.	0
	Support climate change adaptation.		Deep water cruise facilities will not have a direct effect in supporting climate change adaption. Overall, a negligible effect is identified.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and	There are a total of eight Historic Marine Protected Areas (HMPA) which are designated within Scottish territorial waters (0-12 miles). There are also nine scheduled monuments (including seven wrecks in Scapa Flow), and 13 sites designated under the Protection of Military Remains Act 1986.	The location and scale of the of deep water facilities for cruise liners, the effect on cultural heritage could be significant. Larger scale facilities may have a localised impact on the setting of both terrestrial and coastal assets while the industrial activities associated with deep water ports may damage marine heritage. However, this would take place along selected locations with the scale of the development also undetermined. Planning policy and environmental protections are in place to conserve and, where appropriate, enhance historic marine assets so significant adverse effects on designated historic assets is unlikely. There is, however, scope for direct or indirect effects on undesignated and unknown historic assets.	-

Action 2: Invest to support blue economy expansion **Alternative 2:** Deep water facilities for cruise liners **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, with the expansion of existing port facilities.				
	cultural value e.g. locally listed buildings.			
	Improve the quality of the wider built environment.		Most implemented projects should make a positive contribution to the quality of the wider built environment. Therefore a minor positive effect is identified.	+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There is potential for interaction with designated and sensitive landscapes. Several NSA are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element.	Given the protections put in place through National Planning Policy, significant environmental impacts will have to be fully explored and justified if development is to progress. The impact upon NSA is also dependent upon the scale of the proposed development. However, this type of development is expected to occur in a limited number of locations. Overall, a negligible but uncertain effect is identified. It is possible that the development of deep water facilities for cruise liners could lead to an increase in the numbers of cruise liners in Scottish waters, with adverse impacts on the character of currently remote and undeveloped sections of coast. At the same time, the development could allow more people to experience and enjoy the diversity of Scottish coastal landscapes and seascapes.	-/+
	Protect geological sites of national, regional or local importance.	There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Reflecting the environmental protections put in place to protect geological site, the effect is negligible. However, this is dependent on the location and maintenance required by deep water facilities (e.g. dredging). Some minor negative effects may remain.	0/-
Material Assets	Avoid adversely impacting on material assets.	There is potential for the development of infrastructure to support boat based tourism to impact upon existing material assets such as water supply, energy provision (existing or potential) or other material assets such as minerals.	This is not expected to have an effect on this SEA objective. A negligible effect is identified.	0
	Enhance material assets and support the sustainable use and management of existing material assets.		This is not expected to have an effect on this SEA objective. A negligible effect is identified.	0

Action 2 - Alternative 3

Action 2: Invest to support blue economy expansion

Alternative 3: Infrastructure supporting boat based tourism

Spatial extent and scale of asset affected: This would take place at a selected number of locations along 590 km^2 of Scotland's foreshore, with greater focus on the west coast of Scotland.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for the development of deep water facilities for cruise liners to interact with designated or sensitive areas in the marine environment. There are 18 Nature Conservation Marine Protected Areas which lie within Crown Estate Scotland's assets. A significant amount of coastal SAC and Ramsar sites lie within Crown Estate Scotland's coastal assets. There are also 11 offshore SACs contained within Crown Estate Scotland's assets as well as a number of internationally important marine species and seabirds.	Existing environmental protections, particularly EIA and HRA, may avoid significant negative effects associated with the development of the development of infrastructure to support boat-based tourism on the aquatic environment. However, due to nature of these sites, minor negative and permanent effects may remain. Additionally, this development would take place in a small number of selected locations. As such, these effects are likely to be localised.	-?
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		This type of development has the potential to increase fragmentation of ecological areas and green spaces and have localised, permanent effects in rural, coastal areas. However, as this development is anticipated to progress at a limited number of locations, it is likely that overall effect would be negligible. There is, however, potential for projects to include habitat creation or compensation in the form of biodiversity net gain.	0/-
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	This development could result in localised short and long term effects on population and human health as a result of construction impacts and operation of the port facilities. As this development will take place in a limited number of locations and overall impacts are identified as negligible.	0/-
	Improve the health and living environment of people and communities.		The creation of infrastructure to support boat based tourism may have a minor positive effect in the local area through the provision of economic benefits to local communities through increases in tourism and industry where these facilities are put in place.	+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The development of infrastructure is unlikely to have a significant effect on the quality, quantity and connectivity of publicly accessible open space. It is possible that minor benefits would result where public realm enhancements are undertaken as part of the development to support boat based tourism.	0

Action 2: Invest to support blue economy expansion **Alternative 3:** Infrastructure supporting boat based tourism **Spatial extent and scale of asset affected:** This would take place at a selected number of locations along 590 km^2 of Scotland's foreshore, with greater focus on the west coast of Scotland.				
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	Most implemented projects are unlikely to have a significant effect on soils. However, infrastructure to support boat based tourism could have minor negative effects on soil resources particularly in rural coastal areas with sensitive or rare soils.	0/-
	Reduce vacant and derelict land and buildings.		Most implemented infrastructure projects are unlikely to have a significant effect on vacant and derelict land and buildings. The implemented infrastructure could, however, have a minor positive effect in reducing vacant and derelict land and buildings.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters are in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	As this development would only occur at a selected number of locations and reflecting the requirements for environmental assessment through EIA and Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), the overall effect is identified as negligible. However, moderate increases, or a series of minor increases, in water pollution may also occur due to the activities associated with this type of development. With the potential for minor negative effects to remain.	0/-
	Avoid and reduce flood risk both presently and taking into account climate change.		The development of deep water facilities could indirectly impact on flood risk as a result of the location and design of the development However due to the limited locations where this development could take place, and reflecting the requirement for significant infrastructure projects to be subject to EIA a negligible effect is anticipated.	0/-
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee and the City of Aberdeen, which includes or in close proximity to the port areas.	Infrastructure to support boat based tourism is anticipated to occur in a limited number of locations. As such, this may result in permanent, localised effects. However, if the development exceeds a certain scale, it may be subject to EIA which will require the consideration of likely significant effects on air quality. Overall, a negligible effect is identified.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.		This type of development will not directly improve air quality. A negligible effect is identified.	0

Action 2: Invest to support blue economy expansion **Alternative 3:** Infrastructure supporting boat based tourism **Spatial extent and scale of asset affected:** This would take place at a selected number of locations along 590 km^2 of Scotland's foreshore, with greater focus on the west coast of Scotland.				
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The impacts of climate change will impact on all areas of Scotland. The impacts of sea level rise resulting from climate change will be particularly significant in coastal locations where development would take place. There is also a risk of more extreme weather events (e.g. sea surges and storms). Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	This type of development may indirectly contribute to greenhouse gas emissions, particularly through their impact on sea and road transport. While it may be possible to mitigate significant negative effects, the overall effect is identified as a minor negative.	-
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This type of development would not directly support actions to reduce greenhouse gas emissions. Overall, a negligible effect is identified.	0
	Support climate change adaptation.		Infrastructure to support boat based tourism will not have a direct effect in supporting climate change adaption. Overall, a negligible effect is identified.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Most implemented projects are unlikely to have a significant effect on sensitive cultural assets. It is possible that some projects could have a minor negative effect as a result, for example, of impacts on undesignated or previously unknown historic assets. There could also be positive effects where historic buildings, sites or other assets are brought into positive use or management and where implemented projects create new opportunities for understanding and awareness of the historic environment.	-/+
	Improve the quality of the wider built environment.		Most implemented projects should make a positive effect to the quality of the wider environment.	+

Action 2: Invest to support blue economy expansion **Alternative 3:** Infrastructure supporting boat based tourism **Spatial extent and scale of asset affected:** This would take place at a selected number of locations along 590 km^2 of Scotland's foreshore, with greater focus on the west coast of Scotland.				
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element.	Most implemented projects are unlikely to have significant effects upon landscape and seascape character. If development of infrastructure to support boat based tourism is likely to be concentrated on the west coast of Scotland, where a significant area of the coast is designated as NSA, there is potential for significant negative effects to arise. However, considering the environmental protections and planning regulations put in place to safeguard landscape and seascape character, the overall effect is identified as minor negative.	-
	Protect geological sites of national, regional or local importance.		Most implemented projects are unlikely to have a significant effect on geological sites of national, regional or local importance. Some potential for minor impacts remains however.	0/-
Material Assets	Avoid adversely impacting on material assets.	There is potential for the development of infrastructure to support boat based tourism to impact upon existing material assets such as water supply, energy provision (existing or potential) or other material assets such as minerals.	This is not expected to have an effect on this SEA objective. A negligible effect is identified.	0
	This is not expected to have an effect on this SEA objective. A negligible effect is identified.		This is not expected to have an effect on this SEA objective. A negligible effect is identified.	0

Action 2 - Alternative 4

Action 2: Invest to support blue economy expansion
Alternative 4: Development of land associated with ports and harbours

Spatial extent and scale of asset affected: The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for the development of deep water facilities for cruise liners to interact with designated or sensitive areas in the marine environment. There are 18 Nature Conservation Marine Protected Areas which lie within Crown Estate Scotland's assets. A significant amount of coastal SAC and Ramsar sites lie within Crown Estate Scotland's coastal assets. There are also 11 offshore SACs contained within Crown Estate Scotland's assets as well as a number of internationally important marine species and seabirds.	Existing environmental protections, particularly EIA and HRA, may avoid significant negative effects associated with the development of land associated with ports and harbours on the aquatic environment. However, due to nature of these sites, minor negative and permanent effects may remain. Additionally, this development would take place in a small number of selected locations. As such, these effects are likely to be localised.	0/-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			0/-
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	This development could result in localised short and long term effects on population and human health as a result of construction impacts and operation of the port facilities. However, this may involve the remediation of vacant and derelict land which may As this development will take place in a limited number of locations and overall impacts are identified as negligible.	0
	Improve the health and living environment of people and communities.		The development of land associated with ports and harbours may have an indirect minor positive effect in the local area through the provision of economic benefits to local communities through increases in tourism as well as the potential development of commercial premises and facilities.	+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The development of land associated with ports and harbours could have a positive effect on retaining and improving the quality, quantity and connectivity of publicly accessible open space.	+

Action 2: Invest to support blue economy expansion

Alternative 4: Development of land associated with ports and harbours

Spatial extent and scale of asset affected: The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore.

Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	Most implemented projects are unlikely to have a significant effect on soils. However, the development of land associated with ports and harbours could have minor negative effects on soil resources particularly in rural coastal areas with sensitive or rare soils.	0/-
	Reduce vacant and derelict land and buildings.		Most implemented infrastructure projects are unlikely to have a significant effect on vacant and derelict land and buildings. The development of land associated with ports and harbours may involve the remediation and redevelopment on vacant and derelict land which would have a minor positive effect.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	As this development would only occur at a selected number of locations and reflecting the requirements for environmental assessment through EIA and Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), the overall effect is identified as negligible. However, moderate increases, or a series of minor increases, in water pollution may also occur due to the activities associated with this type of development with the potential for minor negative effects to remain.	0/-
	Avoid and reduce flood risk both presently and taking into account climate change.		Due to the limited locations where this development could take place, and reflecting the requirement for significant infrastructure projects to be subject to EIA a negligible effect is anticipated. However, the development of land associated with ports and harbours could indirectly impact on flood risk as a result of the location and design of the development and increase of impermeable surfaces. Minor negative effects may remain.	0/-
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee.	Land associated with ports and harbours are anticipated to occur in a limited number of locations. As such, this may result in permanent, localised effects. However, if the development exceeds a certain scale, it may be subject to EIA which will require the consideration of likely significant effects on air quality. Overall, a negligible effect is identified	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			

Action 2: Invest to support blue economy expansion **Alternative 4:** Development of land associated with ports and harbours **Spatial extent and scale of asset affected:** The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore.				
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The impacts of climate change will impact on all areas of Scotland. The impacts of sea level rise resulting from climate change will be particularly significant in coastal locations where development would take place. There is also a risk of more extreme weather events (e.g. sea surges and storms). Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	It is likely that the development of land associated with ports and harbours will result in greenhouse gas emissions, primarily during construction, operation however significant emissions are considered unlikely. These are judged to be potential effects of minor significance given the scale and types of development likely to be progressed.	0/-
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This type of development would not directly support actions to reduce greenhouse gas emissions. Overall, a negligible effect is identified.	0
	Support climate change adaptation.		It is likely that many implemented projects will support climate change adaptation, where relevant. This could include measures to manage surface water runoff, ensure buildings can cope with projected rainfall and are located to avoid future flood risk. It could also include creation of greenspace in communities or measures to help species adapt.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Most implemented projects are unlikely to have a significant effect on sensitive cultural assets. It is possible that some projects could have a minor negative effect as a result, for example, of impacts on undesignated or previously unknown historic assets. There could also be positive effects where historic buildings, sites or other assets are brought into positive use or management and where implemented projects create new opportunities for understanding and awareness of the historic environment.	-/+
	Improve the quality of the wider built environment.	Creating Places, the Scottish Government policy statement on Architecture and place for Scotland, describes the six qualities of positive	Most implemented projects should make a positive effect to the quality of the wider environment.	+

Action 2: Invest to support blue economy expansion

Alternative 4: Development of land associated with ports and harbours

Spatial extent and scale of asset affected: The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore.

		placemaking as: Distinctive, Safe and Pleasant, Easy to move around and beyond, Welcoming, Adaptable, Resource Efficient.		
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several NSA are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element.	Most implemented projects are unlikely to have a significant effect on landscape and seascape character. It is, however, possible that some implemented projects could have a negative impact on landscape and / or seascape character, particular where they are located within or close to a National Scenic Area or locally sensitive area of coastline.	0/-
	Protect geological sites of national, regional or local importance.		Most implemented projects are unlikely to have a significant effect on geological sites of national, regional or local importance. Some potential for minor impacts remains however.	0/-
Material Assets	Avoid adversely impacting on material assets.	There is potential for the development of infrastructure to support boat based tourism to impact upon existing material assets such as water supply, energy provision (existing or potential) or other material assets such as minerals.	This is not expected to have an effect on this SEA objective. A negligible effect is identified.	0
	Enhance material assets and support the sustainable use and management of existing material assets.		The development of land associated with ports and harbours could enhance material assets, for example through the development of commercial premises and facilities.	+

Action 13 – Alternative 1

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development

Alternative 1: Coastal Asset Strategy developed and implemented as a framework for managing coastal assets.

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for management of coastal assets to interact with designated and ecologically sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	While the location of many Crown Estate Scotland coastal assets in sensitive coastal and marine environments would suggest the potential for significant adverse impacts on biodiversity, flora and fauna, the focus on the management and maintenance of existing coastal assets, rather than the development of new assets, should mean that the impacts on species and habitats of international, national, regional or local importance minimised. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. There may be opportunities to manage coastal assets to improve their biodiversity value.	-/+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	The Coastal Asset Strategy should help prioritise maintenance and management of assets, including ensuring that adverse effects on health or quality of life (e.g. health and safety) are minimised or avoided. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0/+
	Improve the health and living environment of people and communities.		The Coastal Asset Strategy will prioritise the maintenance and management of assets which may improve the living environment for people and communities.	0/+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The Coastal Asset Strategy may identify opportunities to improve community access.	0/+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare	The focus on the management of existing assets should mean the implications for soil are negligible.	0

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development **Alternative 1:** Coastal Asset Strategy developed and implemented as a framework for managing coastal assets. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.				
	Reduce vacant and derelict land and buildings.	coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	The Coastal Asset Strategy will help ensure that Crown Estate's assets are managed and maintained properly, avoiding the risk of redundant land, buildings or infrastructure.	+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	The prioritisation of coastal asset management may identify opportunities to improve water quality and quantity.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.		The prioritisation of coastal asset management may identify opportunities to better address current and future flood risk.	0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	It is unlikely that implementation of the Coastal Asset Strategy will have significant effects on air quality.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	It is unlikely that implementation of the Coastal Asset Strategy will lead to an increase in greenhouse gas emissions.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		Implementation of the Coastal Asset Strategy may identify and prioritise opportunities to improve the emissions performance of existing buildings and infrastructure.	0/+
	Support climate change adaptation.		Implementation of the Coastal Asset Strategy may identify and prioritise the need to adapt coastal assets to the changing climate, including sea	0/+

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development

Alternative 1: Coastal Asset Strategy developed and implemented as a framework for managing coastal assets.

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.

			level rise, increasing rainfall and extreme weather events.	
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Implementation of the Coastal Assets Strategy will guide and prioritise the management and maintenance of coastal assets, some of are of historic importance in their own right or are close to other historic assets. It should help ensure that historic significance is reflected in the way that assets are managed.	0/+
	Improve the quality of the wider built environment.	Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	The Coastal Asset Strategy should help prioritise maintenance and management of assets, including ensuring that assets' contribution to the quality of the wider built environment is maintained or enhanced.	0/+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	While the location of many Crown Estate Scotland coastal assets in sensitive landscape and seascape settings would suggest the potential for significant adverse impacts on landscape, the focus on the management and maintenance of existing coastal assets, rather than the development of new assets, should mean that the impacts are minimised. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0/-

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development **Alternative 1:** Coastal Asset Strategy developed and implemented as a framework for managing coastal assets. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.				
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	The focus on the management of existing assets should mean the implications for geodiversity are negligible.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	The focus on the management of existing assets should mean the implications for material assets are negligible. There may be opportunities to improve energy efficiency.	0/+
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 13 – Alternative 2

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development

Alternative 2: Coastal assets are managed without the benefit of a comprehensive strategy.

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for management of coastal assets to interact with designated and ecologically sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	While the location of many Crown Estate Scotland coastal assets in sensitive coastal and marine environments would suggest the potential for significant adverse impacts on biodiversity, flora and fauna, the focus on the management and maintenance of existing coastal assets, rather than the development of new assets, should mean that the impacts on species and habitats of international, national, regional or local importance minimised. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. The absence of an overall strategy could make it more difficult to ensure that biodiversity issues are considered consistently. There may be opportunities to manage coastal assets to improve their biodiversity value. The absence of a strategy may make it more difficult to achieve such benefits consistently.	-/+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			
Population and Human Health	Avoid adverse effects on health and quality of life	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	The absence of an overall strategy could make it more difficult to ensure that issues affecting population and human health are prioritised and considered consistently. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0
	Improve the health and living environment of people and communities.		If a Coastal Asset Strategy is not implemented there may be missed opportunities to improve health and the living environment for people and communities	0
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		The absence of a Coastal Asset Strategy may make it more difficult to realise opportunities to improve community access consistently.	0

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development **Alternative 2:** Coastal assets are managed without the benefit of a comprehensive strategy. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.				
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	The focus on the management of existing assets should mean the implications for soil are negligible.	0
	Reduce vacant and derelict land and buildings.		The absence of a Coastal Asset Strategy could mean that it is more difficult to will ensure that Crown Estate's assets are managed and maintained properly. It is however unlikely that this will result in a significant increase in dereliction or vacant properties.	0
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	The absence of a Coastal Asset Strategy may make it more difficult to prioritise and address opportunities to improve water quality and quantity.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		The absence of a Coastal Asset Strategy may make it more difficult to prioritise and address opportunities to better address current and future flood risk.	0
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	It is unlikely that management of coastal assets will have significant effects on air quality.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	It is unlikely that management of coastal assets will lead to an increase in greenhouse gas emissions.	0

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development **Alternative 2:** Coastal assets are managed without the benefit of a comprehensive strategy. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.				
	Support actions which contribute to targets for reducing greenhouse gas emissions.		The absence pf a Coastal Asset Strategy may make it more difficult to identify and prioritise opportunities to improve the emissions performance of existing buildings and infrastructure.	0
	Support climate change adaptation.		The absence pf a Coastal Asset Strategy may make it more difficult to identify and prioritise opportunities to adapt coastal assets to the changing climate, including sea level rise, increasing rainfall and extreme weather events.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	The absence pf a Coastal Asset Strategy may make it more difficult to ensure that the historic significance of coastal assets is considered and reflected in management consistently and comprehensively.	0
	Improve the quality of the wider built environment.		The absence of an overall strategy could make it more difficult to ensure that assets' contribution to the quality of the wider built environment is maintained or enhanced.	0/+

Action 13: Implement the three-year Coastal Asset Strategy to meet business targets, manage agreements efficiently and support the development of ports & harbours, maritime transport, oil and gas infrastructure, marine tourism, utilities and private/commercial development **Alternative 2:** Coastal assets are managed without the benefit of a comprehensive strategy. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will involve the development and implementation of a three year Coastal Asset Strategy which will guide and prioritise investment and maintenance of existing coastal assets to support wider objectives including the developments set out in Action 14.				
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks	While the location of many Crown Estate Scotland coastal assets in sensitive landscape and seascape settings would suggest the potential for significant adverse impacts on landscape, the focus on the management and maintenance of existing coastal assets, rather than the development of new assets, should mean that the impacts are minimised. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. The absence of an overall strategy could make it more difficult to ensure that landscape and visual implications of maintenance or management are considered consistently.	0/-
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	The focus on the management of existing assets should mean the implications for geodiversity are negligible.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	The focus on the management of existing assets should mean the implications for material assets are negligible. There may be opportunities to improve energy efficiency, though the absence of a strategy could make it harder to ensure such opportunities are identified and realised.	0/+
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 14 – Alternative 1

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy.
Alternative 1: Focus on ports and harbours.

Spatial extent and scale of asset affected: This would take place at selected coastal locations, principally involving the development or modernisation of existing ports and harbours.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for management of coastal assets to interact with designated and ecologically sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	Reflecting the environmental protections which apply to port development in relation to HRA and EIA. While significant negative effects could be avoided, it is likely that, due to the existing developed nature of these sites, minor negative permanent effects may remain as a result of any development.	0/-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		Investment in ports and harbours could have minor localised, permanent impacts on wildlife corridors or the fragmentation of ecological areas and green spaces. However this development will be focused within existing ports and harbours. There may be opportunities to secure enhancements as part of development.	0
Population and Human Health	Avoid adverse effects on health and quality of life	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	Investment in ports and harbours could result in localised short and long term effects on health and quality of life as a result of construction impacts and operation of the port facilities. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0/-
	Improve the health and living environment of people and communities.		Investment in ports and harbours may have minor indirect positive impacts on the living environments of people and communities through the creation of jobs. Overall, a minor positive effect is identified.	+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		Investment in ports and harbours could result in localised short and long term effects on publicly accessible open space. This could include opportunities to improve public access. Crown Estate Scotland's commitment to align with planning policy will help to ensure adverse effects are minimised.	-/+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being	Investment in ports and harbours could have significant environmental impacts on fragile coastal soils. Depending on the scale of the development, localised permanent impacts on soil may arise.	0

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 1:** Focus on ports and harbours. **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, principally involving the development or modernisation of existing ports and harbours.				
	agricultural land.	influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	However, reflecting environmental protections put in place to safeguard designated or sensitive environments a negligible effect is anticipated. This assumes that proportionate environmental assessment is employed to protect valuable soil resources.	
	Reduce vacant and derelict land and buildings.		Investment in ports and harbours action could involve potential redevelopment of vacant and derelict land and buildings through increased development, or measures to avoid future redundancy.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Investment in ports and harbours could lead to increases in water pollution depending on the types of activity to be accommodated. It could also help address existing risks of pollution. Impacts on the water environment are controlled through regulation such as CAR. Therefore negligible effects are identified. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		Investment in ports and harbours could increase flood risk, or place people and property at current or future risk of flooding. There is also potential for investment to help address existing or future flood risk. Crown Estate Scotland's commitment to align with planning policy will help to ensure adverse effects are minimised.	-/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	Investment in ports and harbours could result in air quality impacts depending on the type of activity accommodated (including direct and indirect effects associated with road traffic and emissions from vessels) and whether the port in question is located within or close to an AQMA. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is	Investment in ports and harbours could result in increases in greenhouse gas emissions depending on the nature of development and indirect effects associated with emissions from road traffic or vessels.	0/-

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 1:** Focus on ports and harbours. **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, principally involving the development or modernisation of existing ports and harbours.				
	including agriculture and forestry.	also a significant issue, reflecting their vulnerability to sea level rise.		
	Support actions which contribute to targets for reducing greenhouse gas emissions.		Investment in ports and harbours could improve the emissions performance of existing buildings and infrastructure or support the transition to low emissions transport technologies.	0/+
	Support climate change adaptation.		Investment in ports and harbours could help adaptation to the changing climate, including sea level rise, increasing rainfall and extreme weather events.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	Investment in ports and harbours could impact on historic buildings, structures or their settings. Crown Estate Scotland's commitment to align with planning policy should help avoid adverse impacts on designated sites, there remains potential for adverse effects on undesignated or currently unknown assets.	0/-
	Improve the quality of the wider built environment.		There is a risk that investment in ports and harbours, depending on the scale and character of development, could have an adverse impact on the quality of the built environment. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. There is also potential for investment in to ensure that port and harbour	-/+

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 1:** Focus on ports and harbours. **Spatial extent and scale of asset affected:** This would take place at selected coastal locations, principally involving the development or modernisation of existing ports and harbours.				
			assets' contribution to the quality of the wider built environment is maintained or enhanced.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks	Investment in ports and harbours is likely to be focused within existing facilities, so impacts on currently undeveloped landscape are unlikely. However, a number of existing ports and harbours are located within or close to National Scenic Areas or areas of more local landscape importance. Depending on the scale and nature of development resulting from this investment, there is potential for adverse landscape and visual effects. Crown Estate Scotland's commitment to align with planning policy will help to ensure adverse effects are minimised.	-
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Investment in ports and harbours is likely to be focused within existing facilities so the impacts on designated geodiversity sites are unlikely.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Investment in ports and harbours could result in demand for construction materials during construction (depending on the type and scale of development) and operation of facilities. The latter could include indirect effects, for example, fuel consumed by additional road traffic or vessels using the port. Depending on the nature of the investment, there could also be opportunities to improve energy efficiency.	-/+
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 14 – Alternative 2

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy.
Alternative 2: Boat based tourism

Spatial extent and scale of asset affected: This could include investment in facilities for recreational boating (moorings, pontoons, marinas and slipways), facilities for boat trip operators or targeted investment to support more specialist activities such as kayaking.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for management of coastal assets to interact with designated and ecologically sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	It is possible that investment in boat based tourism could result in ecological impacts as a result both of physical developments in sensitive locations, or as a result of increased levels of tourism activity, which could result in increased damage to marine and coastal habitats and disturbance to seabirds and marine mammals. Environmental protection and consenting processes (including EIA and HRA) should help ensure that impacts of infrastructure development are identified and minimised. Potential impacts associated with increasing recreation activity may be mitigated by codes of conduct for operators and participants, but potential impacts are likely to remain.	-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		It is possible that investment in boat based tourism impact wildlife corridors and result in ecological fragmentation as a result both of physical developments in sensitive locations, and as a result of increased levels of tourism activity, which could result in increased damage to marine and coastal habitats and disturbance to seabirds and marine mammals. Environmental protection and consenting processes (including EIA and HRA) should help ensure that impacts of infrastructure development are identified and minimised. Potential impacts associated with increasing recreation activity may be mitigated by codes of conduct for operators and participants, but potential impacts are likely to remain.	-
Population and Human Health	Avoid adverse effects on health and quality of life.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the	Investment in boat based tourism could have adverse effects where development affects existing communities and neighbouring properties. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. This is likely to represent a minor adverse effect at worst. By supporting active outdoor recreation, this investment could improve	-/+

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 2:** Boat based tourism **Spatial extent and scale of asset affected:** This could include investment in facilities for recreational boating (moorings, pontoons, marinas and slipways), facilities for boat trip operators or targeted investment to support more specialist activities such as kayaking.				
		isolated coast and the remaining 14% living within "undeveloped coast".	the health of participants. This could be a minor, positive effect.	
	Improve the health and living environment of people and communities.		Investment in boat based tourism could have adverse effects where development affects existing communities and neighbouring properties. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised. This is likely to represent a minor adverse effect at worst. By supporting active outdoor recreation, this investment could improve the health of participants. This could be a minor, positive effect.	-/+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		This action is unlikely to affect the quality, quantity and connectivity of publicly accessible open space.	0
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	While investment in boat based tourism infrastructure could have impacts on fragile coastal soils, the scale of development is unlikely to result in significant affects.	0
	Reduce vacant and derelict land and buildings.		Investment in boat based tourism infrastructure is unlikely to have a significant effect on the supply of vacant and derelict land.	0
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Investment in boat based tourism infrastructure is unlikely to have significant impacts on the quality and quantity of water resources. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		Investment in boat based tourism is unlikely to increase flood risk, though unless properly designed and implemented it could place people and property at current or future risk of flooding. In part this is an intrinsic characteristic of coastal development.	0

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 2:** Boat based tourism **Spatial extent and scale of asset affected:** This could include investment in facilities for recreational boating (moorings, pontoons, marinas and slipways), facilities for boat trip operators or targeted investment to support more specialist activities such as kayaking.				
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	Investment in boat based tourism could result in local air quality impacts depending on the type of activity accommodated (including direct and indirect effects associated with road traffic and emissions from vessels) and whether the development in question is located within or close to an AQMA. Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	Investment in boat based tourism is likely to have minor implications for greenhouse gas emissions depending on the nature of development and indirect effects associated with emissions from road traffic or vessels.	0/-
	Support actions which contribute to targets for reducing greenhouse gas emissions.		Investment in boat based tourism is unlikely to play a significant role in helping to reduce greenhouse gas emissions. It is possible that by supporting the tourism sector, this investment will encourage domestic tourism in preference to overseas trips, but that cannot be predicted with any confidence.	0/+
	Support climate change adaptation.		Investment in boat based tourism could help adaptation to the changing climate, particularly the effects of sea level rise.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and	While there is potential for investment in boat based tourism to impact on historic buildings, structures or their settings, the small scale of development together with Crown Estate Scotland's commitment to align with planning policy should help avoid adverse impacts. There remains some potential for adverse effects on undesignated or currently unknown assets.	-

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 2:** Boat based tourism **Spatial extent and scale of asset affected:** This could include investment in facilities for recreational boating (moorings, pontoons, marinas and slipways), facilities for boat trip operators or targeted investment to support more specialist activities such as kayaking.				
	Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations		
	Improve the quality of the wider built environment.		Investment in boat based tourism is unlikely to have significant positive or negative effects on the quality of the built environment.	0
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	Most investment in boat based tourism is unlikely have significant landscape and visual impacts. Such effects are however possible where new structures are introduced into otherwise undeveloped coastal landscapes or where increases in tourism boat activity impinges on wild land or sea qualities. Crown Estate Scotland's commitment to align with planning policy will help to ensure adverse effects are minimised. Support for expansion of boat based tourism could allow more people to experience the character and quality of Scottish coastal landscapes.	0/-/+
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Investment in boat based tourism is unlikely to have an adverse effect on designated geodiversity sites is unlikely. Boat based tourism could allow more people to experience the diversity of coastal geology and landforms.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Investment in boat based tourism could result in demand for construction materials during construction (depending on the type and scale of development) and operation of facilities. The latter could include indirect effects, for example, fuel consumed by additional road traffic or vessels. Depending on the nature of the investment, there could also be opportunities to improve energy efficiency or measures to support the take up of low carbon energy for vehicles and vessels.	-/+
	Enhance material assets and support the sustainable use and management of existing			

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 2:** Boat based tourism **Spatial extent and scale of asset affected:** This could include investment in facilities for recreational boating (moorings, pontoons, marinas and slipways), facilities for boat trip operators or targeted investment to support more specialist activities such as kayaking.				
	material assets.			

Action 14 – Alternative 3

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy.
Alternative 3: Coastal development land

Spatial extent and scale of asset affected: The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore. It could include the remediation of and development of vacant and derelict land.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	There is potential for management of coastal assets to interact with designated and ecologically sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	The location of many Crown Estate Scotland coastal assets in sensitive coastal and marine environments suggests there is potential for significant adverse impacts on biodiversity, flora and fauna. However, Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects on designated sites are minimised. Furthermore, Crown Estate Scotland's Value Project should influence decisions on which sites should be brought forward for development, taking account of existing and potential biodiversity value. There may be opportunities to manage coastal assets to improve their biodiversity value.	-/+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		There is potential for coastal development projects to impact upon existing wildlife corridors or contribute to the fragmentation of ecological areas or green spaces. Equally, there is potential for sensitively designed development to enhance wildlife corridors and reverse fragmentation. Crown Estate Scotland's Value Project should influence decisions on which sites should be brought forward for development, taking account of existing and potential biodiversity value. There may be opportunities to manage coastal assets to improve their biodiversity value.	-/+
Population and Human Health	Avoid adverse effects on health and quality of life	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	Development of coastal sites could have mixed effects on health, quality of life and people's living environment. New development is likely to create employment opportunities or homes for people to live. It may also help bring vacant or derelict buildings or land back into positive use. Development could also have adverse effects, depending on the relationship with surrounding land uses, the scale and type of development and uses to be accommodated. Construction and traffic during operation could bring additional impacts.	-/+
	Improve the health and living environment of people and communities.			

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 3:** Coastal development land **Spatial extent and scale of asset affected:** The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore. It could include the remediation of and development of vacant and derelict land.				
			Crown Estate Scotland's commitment to align with planning policy will help ensure that adverse impacts are avoided or minimised.	
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		Depending on the scale and location of development, there could be opportunities to contribute to improvements in publicly accessible space. This could include enhanced access to the shoreline or within harbours.	+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	Given the range of potential locations along the coastline where development might take place, there is potential for impacts on sensitive soils, particularly where they are not protected by related biodiversity designations.	-
	Reduce vacant and derelict land and buildings.		There is potential for development to facilitate the remediation of damaged or contaminated soils.	+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Minor, mixed effects on water quality and quantity are possible as a consequence of coastal development. Significant adverse effects should be avoided by ensuring development meets statutory requirements. There may be opportunities to remediate poor water quality associated with previously developed sites.	-/+
	Avoid and reduce flood risk both presently and taking into account climate change.		By aligning proposals for coastal development with local development plan policies, this Action should not increase flood risk and should take account of future climate change (including sea level rise and fluvial / pluvial flooding). There may be opportunities for coastal development to address existing flood risk.	0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	In most cases, coastal development will accommodate uses and be in locations which raise no air quality concerns. There is, however, the potential for adverse impacts where the proposed land use in question generates significant amounts of air pollution, odour or dust, either from the development itself or from vehicles and vessels serving them. This could be of greatest significance where development takes place within, or close to, an AQMA or other area with poor air quality. Crown Estate Scotland's commitment to align with local development policies should help ensure such effects are avoided.	-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 3:** Coastal development land **Spatial extent and scale of asset affected:** The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore. It could include the remediation of and development of vacant and derelict land.				
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	Development, in any location, has potential to increase greenhouse gas emissions as a result of construction (including selection of building materials), use (power, heating, lighting, any industrial processes) and transport. Current building standards and planning policies will help ensure that significant adverse effects are avoided, but there is additional potential to adopt measures such as low carbon design and construction, energy efficient operation (including micro-renewables) and selecting locations easily accessible on foot, bike or by public transport.	-/0
	Support actions which contribute to targets for reducing greenhouse gas emissions.			
	Support climate change adaptation.		Coastal locations are likely to be particularly exposed to climate change including sea level rise, coastal flooding, changing patterns of erosion and deposition, more intense and frequent storms and other extreme weather, together with opportunities presented by warmer summers and winters. Development in coastal locations should support measures to increase resilience and adaptation to future climate conditions	+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Coastal development has the potential to impact historic assets or their setting. Crown Estate Scotland's commitment to align their approach with local development plan policy will mean that significant adverse effects on the historic environment, particularly designated sites and assets are avoided. There remains potential for coastal development to adversely affect undesignated or unknown historic assets. There is also potential that coastal development could bring previously developed, historic sites back into viable use, or to improve the setting of other historic assets.	-/+
	Improve the quality of	Numerous conservation areas, listed	There is potential for poorly designed or located development to have an	-/+

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 3:** Coastal development land **Spatial extent and scale of asset affected:** The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore. It could include the remediation of and development of vacant and derelict land.				
	the wider built environment.	buildings and scheduled monuments are found in coastal locations	adverse impact on the quality of the wider built environment. The scale of such impact is likely to depend on the nature, scale, design and location of the development in question. Crown Estate Scotland's commitment to align with local and national planning policy should help reduce the risk of serious adverse effects. Development may also help improve the quality of the built environment, for example by remediating derelict or vacant land or buildings.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSA) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks	The location of many Crown Estate Scotland coastal assets in sensitive coastal and marine landscapes suggests there is potential for significant adverse impacts on landscapes. However, Crown Estate Scotland's commitment to align with planning policy will help to ensure adverse effects on designated sites are minimised, with most development likely to be concentrated in coastal settlements, existing ports and harbours or on previously developed land. Furthermore, Crown Estate Scotland's Value Project should influence decisions on which sites should be brought forward for development, taking account of landscape sensitivity. There may be opportunities for development to enable the removal or amelioration of detracting landscape features such as derelict sites.	-/+
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	While coastal development could impact on important geodiversity sites, Crown Estate Scotland's commitment to align with national and local planning policy means that impacts on geological sites of national, regional or local importance should be avoided.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Coastal development is unlikely to have a significant impact on existing or future material assets. There may be opportunities to support renewable energy development or facilitate the movement of other natural resources (e.g. harvested timber).	0/+
	Enhance material assets and support the sustainable use and management of existing			

Action 14: Work in partnership with stakeholders to identify opportunities for investment to grow revenue and capital value, deliver environmental and socio-economic benefits to coastal communities and contribute towards growth in the blue economy. **Alternative 3:** Coastal development land **Spatial extent and scale of asset affected:** The development of land associated with ports and harbours would take place along selected parcels of land located along the 590 km^2 of Scotland's foreshore. It could include the remediation of and development of vacant and derelict land.				
	material assets.			

Action 15 – Alternative 1

Action 15 is also relevant to Strategic Objective 4: Build partnerships for people and the planet

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration

Alternative 1: Involvement of communities and partners in identifying potential projects and developing proposals.

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for local regeneration projects to result in interaction with designated and sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with biodiversity issues and local identification of potential projects – minor positive effect.	0/+
Population and Human Health	Avoid adverse effects on health and quality of life Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in physical work so adverse impacts on human health will not occur. There could be some minor positive effects on community and individual well-being as a result of involvement in developing proposals.	0/+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in physical work so adverse impacts on soils will not occur.	0

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 1:** Involvement of communities and partners in identifying potential projects and developing proposals. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
	Reduce vacant and derelict land and buildings.	environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. While it is possible that this Action will support proposals that involve the reuse or redevelopment of vacant and derelict land and buildings, it would not result in physical work so effects are unlikely. Opportunity to encourage communities and partners to explore opportunities to re-use buildings or land – minor positive effect.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in physical work so adverse impacts on water quality or the risk of flooding will not occur. Opportunity to encourage communities and partners to engage activity designed to reduce the risk of flooding – minor positive effect.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.			
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in physical work so adverse impacts on air quality will not occur.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not result in any change in greenhouse gas emissions.	0
	Support actions which contribute to targets for reducing greenhouse gas		This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22.	0/+

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 1:** Involvement of communities and partners in identifying potential projects and developing proposals. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
	emissions.		This Action will not result in any change in greenhouse gas emissions. Opportunity to encourage communities and partners to engage with climate mitigation issues and local identification of potential projects – minor positive effect.	
	Support climate change adaptation.		This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly result in any adaptation actions. Opportunity to encourage communities and partners to engage with climate adaptation and local identification of potential projects – minor positive effect.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly result in development that affects the historic environment. Opportunity to encourage communities and partners to engage with historic environment and local identification of potential projects – minor positive effect.	0/+
	Improve the quality of the wider built environment.		This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly affect the quality of the built environment. Opportunity to encourage communities and partners to become involved in their local area and to identify potential and locally relevant projects –	0/+

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 1:** Involvement of communities and partners in identifying potential projects and developing proposals. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
			minor positive effect.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly affect landscape. Opportunity to encourage communities and partners to engage with landscape and seascape issues and to help identify potential and locally relevant projects – minor positive effect.	0/+
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly affect geological sites of national, regional or local importance. Opportunity to encourage communities and partners to engage with geodiversity issues and to help identify potential and locally relevant projects – minor positive effect.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not directly impact on material assets.	0
	Enhance material assets and support the sustainable use and management of existing material assets.		This action will provide support for local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners. Successful proposals will be progressed under Action 22. This Action will not lead directly to the enhancement of material assets. Opportunity to encourage communities and partners to engage with energy and other material assets, helping identify potential and locally relevant projects – minor positive effect.	0/+

Action 15 – Alternative 2

Action 15 is also relevant to Strategic Objective 4: Build partnerships for people and the planet

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration

Alternative 2: Crown Estate Scotland makes unilateral decisions without inviting applications for funding and without the involvement of communities.

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for local regeneration projects to result in interaction with designated and sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with biodiversity issues is lost.	0
Population and Human Health	Avoid adverse effects on health and quality of life. Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with issues around greenspace and active outdoor recreation is lost.	0
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur.	0

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 2:** Crown Estate Scotland makes unilateral decisions without inviting applications for funding and without the involvement of communities. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
	Reduce vacant and derelict land and buildings.	coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to help identify potential projects targeting the re-use of buildings or land issues is lost.	0
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur.	0
	Avoid and reduce flood risk both presently and taking into account climate change.			
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22.	0

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 2:** Crown Estate Scotland makes unilateral decisions without inviting applications for funding and without the involvement of communities. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
			This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with climate mitigation, including the identification of locally relevant projects, is lost.	
	Support climate change adaptation.		This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with climate adaptation, and the identification of locally relevant projects is lost.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with the historic environment, and to identify locally relevant projects is lost.	0
	Improve the quality of the wider built environment.		This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22.	0

Action 15: Support local regeneration and sustainability, particularly in coastal areas, by rolling-out programme of support for projects that promote sustainable development and regeneration **Alternative 2:** Crown Estate Scotland makes unilateral decisions without inviting applications for funding and without the involvement of communities. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will provide a programme of support for local regeneration and sustainability based projects e.g. funding for feasibility studies.				
			This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to identify locally relevant projects to improve the built environment is lost.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to engage with local landscape and seascape issues, and to help identify locally relevant projects is lost.	0
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to identify locally relevant geodiversity projects is lost.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur.	0
	Enhance material assets and support the sustainable use and management of existing material assets.		This action will aim to identify local regeneration and sustainability projects and test their viability. Successful proposals will be progressed under Action 22. This Action will not result in physical work so impacts will not occur. Opportunity to encourage communities and partners to identify locally relevant energy and other projects is lost.	0

Strategic Objective 2 - Develop built environment that strengthens communities and benefits businesses

Action 19 – Alternative 1

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models.
Alternative 1: Crown Estate Scotland apply/receive planning consent

Spatial extent and scale of asset affected: This action will focus on gaining planning consent for new development on strategic land holdings in the rural, coastal and urban areas of the estate.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, flora and fauna	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for the design of new developments within strategic land holdings to interact with designated and sensitive areas, particularly in the rural and coastal environments. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets. There are two SACs, one Ramsar site, and five SSSIs within the four rural estates as well as several designated and sensitive areas adjacent to and within close proximity to Crown Estate Scotland's rural assets.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to deliver environmental benefits through the creation and/or retention of important habitats for biodiversity (e.g. open spaces, hedgerows, woodlands, and wetlands). The design of developments is likely to take into consideration adjacent Crown Estate Scotland assets to help ensure that habitat fragmentation does not occur. The opportunity to engage with local communities, local authorities and other public sector bodies to inform the design of proposals will help ensure that local biodiversity issues are considered during the design process. The positive effect identified is uncertain as this Action relates to gaining planning consent and not implementing development proposals. Successful projects will be progressed under Action 21 (Alternative 1).	+?
Population and human health	Avoid adverse effects on health and quality of life. Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast". There are 507 tenants across the four rural estates. Generally the rural areas	To reflect Crown Estate Scotland's values of balancing commercial and social considerations, the design of new developments are likely to support the needs of the local community, for example, through providing affordable housing which would allow rural areas to retain their younger generation thereby contributing to balanced communities. The development of affordable housing would also support land-based businesses in the local community which would enhance the rural economy and reduce social exclusion/ deprivation. Crown Estate Scotland's involvement in the design of development proposals would help to ensure that the future use of the land would be complementary to existing business streams and may result in joint-	+?

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 1:** Crown Estate Scotland apply/receive planning consent **Spatial extent and scale of asset affected:** This action will focus on gaining planning consent for new development on strategic land holdings in the rural, coastal and urban areas of the estate.				
		have low population densities with lower numbers of younger people compared to urban areas.	working with community organisations and Local Authorities. Successful projects will be progressed under Action 21 (Alternative 1).	
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	This Action has the potential to affect a range of coastal, upland and lowland soil types, including Class 1 and 2 peatland habitats.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to protect valuable soil resources. With Crown Estate Scotland's involvement, proposals are likely to take into consideration adjacent Crown Estate Scotland assets thereby reducing potential impacts on adjacent sites' soil quality and stability. A neutral effect is identified as planning consent for new commercial and residential developments will not enhance the baseline condition of soils. Successful projects will be progressed under Action 21 (Alternative 1).	0
	Reduce vacant and derelict land and buildings.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to support the use of vacant and derelict land and buildings. Successful projects will be progressed under Action 21 (Alternative 1).	0/+?
Water	Protect and enhance the state of the water environment.	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK. Just under half of Scotland's rivers are now of good or high status. A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to protect water resources. A neutral effect is identified as planning consent for new commercial and residential developments will not enhance the baseline condition of water resources. Successful projects will be progressed under Action 21 (Alternative 1).	0
	Avoid and reduce flood risk both presently and taking into account climate change.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid flood risk areas and may incorporate sustainable drainage technology or coastal flood defences to reduce the risk of surface water and coastal flooding both presently and in the future. Successful projects will be progressed under Action 21 (Alternative 1).	0/+?
Air	Minimise air pollution, particularly where air quality is a known issue through the designation	There are a total of 38 Air Quality Management Areas across 14 local authorities with the majority of these AQMA concentrated in densely	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid areas where there is an AQMA declared.	0

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 1:** Crown Estate Scotland apply/receive planning consent **Spatial extent and scale of asset affected:** This action will focus on gaining planning consent for new development on strategic land holdings in the rural, coastal and urban areas of the estate.				
	of an AQMA. Improve air quality and reduce levels of nuisance associated with poor air quality.	populated, urban locations. Coastal areas experience traffic related air pollution from ships, lorries, and private vehicles. The four local authorities which contain the four rural estates currently have no AQMAs declared.	Successful projects will be progressed under Action 21 (Alternative 1).	
Climatic factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Rural areas will be affected by more unpredictable and extreme weather events such as heavier rain days, hotter temperatures and higher wind speeds. With temperature rises, urban areas will become even hotter than surrounding areas due to the added effect of the urban heat island. Climate change adaptation is significant for rural, coastal and urban communities.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments will consider opportunities to be low carbon or carbon-neutral.	0/+?
	Support actions which contribute to targets for reducing greenhouse gas emissions.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments will consider opportunities to include high energy efficiency standards or low carbon energy sources. Successful projects will be progressed under Action 21 (Alternative 1).	
	Support climate change adaptation.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments will consider opportunities to include adaptation measures such as energy efficient buildings, the creation of greenspaces, building/improving flood defences, and, sustainable drainage systems for surface water runoff. Successful projects will be progressed under Action 21 (Alternative 1).	
Cultural heritage and the historic environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a	Eight designated wreck sites have been identified around the coast; nine Scheduled Monuments (including seven wrecks in Scapa Flow); four listed lighthouses; and, 13 sites designated under the *Protection of Military Remains Act 1986*. Several battlefields have also	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid adverse impacts on designated and undesignated heritage assets and support the reuse/enhancement of listed buildings where appropriate.	0/+?

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 1:** Crown Estate Scotland apply/receive planning consent **Spatial extent and scale of asset affected:** This action will focus on gaining planning consent for new development on strategic land holdings in the rural, coastal and urban areas of the estate.				
	manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. The four rural estates contain a number of designated and undesignated heritage assets including Battlefields; listed buildings; Historic Garden and Designed Landscapes; and, Scheduled Monuments.	Successful projects will be progressed under Action 21 (Alternative 1).	
	Improve the quality of the wider built environment.		The opportunity to engage with local communities, local authorities and other public sector bodies will help ensure that new developments are designed to complement the local built environment. Successful projects will be progressed under Action 21 (Alternative 1).	
Landscape and geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of the NSAs containing some form of coastal or marine element. There are two National Parks (which are also NSAs) covering a combined 5,665km^2 and are also recognised for their geodiversity value; three Regional Parks; and 40 Country Parks in Scotland. The Mines Royal is spread across the country and covers an area of 6,696.43km^2.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid the most scenic and sensitive seascapes and landscapes and create and/or retain landscape boundaries such as hedgerows/trees to minimise impacts on visual amenity. With Crown Estate Scotland's involvement, proposals are likely to take into consideration adjacent Crown Estate Scotland assets thereby reducing potential impacts on visual amenity. The opportunity to engage with local communities, local authorities and other public sector bodies to inform the design of proposals will help ensure that local landscape issues are considered during the design process. Successful projects will be progressed under Action 21 (Alternative 1).	+?
	Protect geological sites of national, regional or local importance.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid important geodiversity sites. Successful projects will be progressed under Action 21 (Alternative 1).	0
Material assets	Avoid adversely impacting on material assets.	Potential for development proposals to impact on the water supply and other material assets such as aggregates for	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid adversely impacting on material assets.	0

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 1:** Crown Estate Scotland apply/receive planning consent **Spatial extent and scale of asset affected:** This action will focus on gaining planning consent for new development on strategic land holdings in the rural, coastal and urban areas of the estate.				
	Enhance material assets and support the sustainable use and management of existing material assets.	buildings.		

Action 19 – Alternative 2

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 2:** Crown Estate Scotland sell land with no planning consent. **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland selling land without planning consent in the rural, coastal and urban areas of the estate.				
SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, flora and fauna	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for the sale of land within strategic land holdings to interact with designated and sensitive areas, particularly in the rural and coastal environments. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets. There are two SACs, one Ramsar site, and five SSSIs within the four rural estates as well as several designated and sensitive areas adjacent to and within close proximity to Crown Estate Scotland's rural assets.	Without Crown Estate Scotland's involvement, future developments may not be designed to deliver environmental benefits such as the creation and/or retention of important habitats for biodiversity (e.g. open spaces, hedgerows, woodlands, and wetlands). Without Crown Estate Scotland's involvement, the design of future developments may not take into consideration adjacent Crown Estate Scotland assets which may result in habitat fragmentation. Without Crown Estate Scotland's involvement at the design and development stages, local communities, local authorities and other public sector bodies may be less engaged resulting in less consideration being given to local biodiversity issues.	-?
Population and human health	Avoid adverse effects on health and quality of life. Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast". There are 507 tenants across the four rural estates. Generally the rural areas have low population densities with lower numbers of younger people compared to urban areas.	Without Crown Estate Scotland's involvement, future developments may not be designed to support the needs of the local communities and the future use of the site may not be complementary to existing business streams. Without Crown Estate Scotland's involvement at the design and development stages, local communities, local authorities and other public sector bodies may be less engaged resulting in ill-designed developments that fail to foster community values.	-?

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 2:** Crown Estate Scotland sell land with no planning consent. **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland selling land without planning consent in the rural, coastal and urban areas of the estate.				
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	This Action has the potential to affect a range of coastal, upland and lowland soil types, including Class 1 and 2 peatland habitats.	Without Crown Estate Scotland's involvement, future developments may not be sensitively designed to avoid valuable soil resources. Without Crown Estate Scotland's involvement, future developments may not take into consideration adjacent Crown Estate Scotland assets which may be impacted by soil erosion, contamination and degradation, depending on the future use of the site.	-?
	Reduce vacant and derelict land and buildings.		Without Crown Estate Scotland's involvement, future developments may not be designed to reuse vacant and derelict land and buildings, where appropriate.	
Water	Protect and enhance the state of the water environment.	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK. Just under half of Scotland's rivers are now of good or high status. A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Without Crown Estate Scotland's involvement, future developments may not be sensitively designed to protect water quality and quantity.	-?
	Avoid and reduce flood risk both presently and taking into account climate change.		Without Crown Estate Scotland's involvement, future developments may not be sensitively designed to avoid flood risk areas and may not incorporate sustainable drainage technology or coastal flood defences, exposing additional people to flood risk. Without Crown Estate Scotland's involvement, future developments may not take into consideration adjacent Crown Estate Scotland assets which may be affected by the development and creation of impermeable surfaces resulting in an increase in flooding on adjacent sites (depending on the future use of the site).	
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	There are a total of 38 Air Quality Management Areas across 14 local authorities with the majority of these AQMA concentrated in densely populated, urban locations. Coastal areas experience traffic related air pollution from ships, lorries, and private vehicles. The four local authorities which contain the four rural estates currently have no AQMAs declared.	Without Crown Estate Scotland's involvement, future developments may be located in areas where there is an AQMA declared and depending on the future use of the site, may result in an increase in emissions.	0/-?
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal	Without Crown Estate Scotland's involvement, future developments may not be low carbon or carbon neutral and may result in an increase in greenhouse gas emissions.	0/-?

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 2:** Crown Estate Scotland sell land with no planning consent. **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland selling land without planning consent in the rural, coastal and urban areas of the estate.				
	forestry.	locations. Rural areas will be affected by more unpredictable and extreme weather events such as heavier rain days, hotter temperatures and higher wind speeds. With temperature rises, urban areas will become even hotter than surrounding areas due to the added effect of the urban heat island. Climate change adaptation is significant for rural, coastal and urban communities.		
	Support actions which contribute to targets for reducing greenhouse gas emissions.		Without Crown Estate Scotland's involvement, future developments may not adopt high energy efficiency standards or low carbon energy sources.	
	Support climate change adaptation.		Without Crown Estate Scotland's involvement, future developments may not incorporate sufficient adaptation measures such as energy efficient buildings, the creation of greenspaces, building/improving flood defences, and, sustainable drainage systems for surface water runoff.	
Cultural heritage and the historic environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Eight designated wreck sites have been identified around the coast; nine Scheduled Monuments (including seven wrecks in Scapa Flow); four listed lighthouses; and, 13 sites designated under the *Protection of Military Remains Act 1986*. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. The four rural estates contain a number of designated and undesignated heritage assets including Battlefields; listed buildings; Historic Garden and Designed Landscapes; and, Scheduled Monuments.	Without Crown Estate Scotland's involvement, future developments may not be sensitively designed to avoid adverse impacts on designated and undesignated heritage assets and may not support the reuse/enhancement of listed buildings.	0/-?
	Improve the quality of the wider built environment.		Without Crown Estate Scotland's involvement at the design and development stages, local communities, local authorities and other public sector bodies may be less engaged resulting in less consideration being given to designing proposals that complement the local built environment.	
Landscape and geodiversity	Protect and enhance landscape and seascape character and quality	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the	Without Crown Estate Scotland's involvement, future developments may not be designed to avoid the most scenic and sensitive seascapes/landscapes and may not deliver environmental benefits such as	-?

Action 19: Pursue consents for appropriate planning uses on strategic land holdings and, where suitable, identify development delivery partners and design of delivery models. **Alternative 2:** Crown Estate Scotland sell land with no planning consent. **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland selling land without planning consent in the rural, coastal and urban areas of the estate.				
	including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	north and west coasts with more than half of the NSAs containing some form of coastal or marine element. There are two National Parks (which are also NSAs) covering a combined 5,665km^2 and are also recognised for their geodiversity value; three Regional Parks; and 40 Country Parks in Scotland. The Mines Royal is spread across the country and covers an area of 6,696.43km^2.	the creation and/or retention of important landscape boundaries such as hedgerows/trees. Without Crown Estate Scotland's involvement, the design of future developments may not take into consideration adjacent Crown Estate Scotland assets which may result in impacts on visual amenity. Without Crown Estate Scotland's involvement at the design and development stages, local communities, local authorities and other public sector bodies may be less engaged resulting in less consideration being given to local landscape/seascape issues.	
	Protect geological sites of national, regional or local importance.		Without Crown Estate Scotland's involvement, future developments may not be designed to avoid important geodiversity sites.	
Material assets	Avoid adversely impacting on material assets.	Potential for development proposals to impact on the water supply and other material assets such as aggregates for buildings.	Without Crown Estate Scotland's involvement, future developments may not be designed to avoid adversely impacting on material assets.	0/-?
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 20 – Alternative 1

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 1:** Crown Estate Scotland apply/receive planning consent and implement development projects across the Scottish Crown Estate, in both urban and rural areas **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent and implementing development projects in the rural, coastal and urban areas of the estate.				
SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, flora and fauna	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for new developments within the existing estate to interact with designated and sensitive areas, particularly in the rural and coastal environments. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets. There are two SACs, one Ramsar site, and five SSSIs within the four rural estates as well as several designated and sensitive areas adjacent to and within close proximity to Crown Estate Scotland's rural assets.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will deliver environmental benefits through the creation and/or retention of important habitats for biodiversity (e.g. open spaces, hedgerows, woodlands, and wetlands). It is expected that new developments will be designed to take into consideration adjacent Crown Estate Scotland assets to help ensure that habitat fragmentation does not occur. With Crown Estate Scotland's involvement, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that local biodiversity issues have been considered. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on biodiversity.	+
Population and human health	Avoid adverse effects on health and quality of life. Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast". There are 507 tenants across the four rural estates. Generally the rural areas have low population densities with lower numbers of younger people compared to urban areas.	To reflect Crown Estate Scotland's values of balancing commercial and social considerations, it is expected that new developments will consider the needs of the local community, for example, through providing affordable housing which will allow rural areas to retain their younger generation thereby contributing to balanced communities. Crown Estate Scotland's involvement in development will help to ensure that the future use of the land will be complementary to existing business streams and will result in joint-working with community organisations and Local Authorities.	+
Soil	Protect valuable soil resources, including	This Action has the potential to affect a range of coastal, upland and lowland	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will	0

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 1:** Crown Estate Scotland apply/receive planning consent and implement development projects across the Scottish Crown Estate, in both urban and rural areas **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent and implementing development projects in the rural, coastal and urban areas of the estate.				
	carbon soils and best and most versatile agricultural land.	soil types, including Class 1 and 2 peatland habitats.	protect valuable soil resources. With Crown Estate Scotland's involvement, proposals are likely to take into consideration adjacent Crown Estate Scotland assets thereby reducing potential impacts on adjacent sites' soil quality and stability. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on soil resources.	
	Reduce vacant and derelict land and buildings.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that development proposals will support the use of vacant and derelict land and buildings, where appropriate.	+
Water	Protect and enhance the state of the water environment.	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK. Just under half of Scotland's rivers are now of good or high status. A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will protect water resources. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on water resources.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will avoid flood risk areas and will incorporate sustainable drainage technology or coastal flood defences to reduce the risk of surface water and coastal flooding both presently and in the future. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on flooding.	0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	There are a total of 38 Air Quality Management Areas across 14 local authorities with the majority of these AQMA concentrated in densely populated, urban locations. Coastal areas experience traffic related air pollution from ships, lorries, and private vehicles. The four local authorities which contain the four rural estates currently have no AQMAs declared.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new development will avoid areas where there is an AQMA declared. However, due to the rural nature of the estates, new commercial and residential development may not be supported by sustainable travel measures leading to the exacerbation of unsustainable travel patterns and possibly localised air pollution. The impact of this effect is not expected to be significant. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on air quality.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 1:** Crown Estate Scotland apply/receive planning consent and implement development projects across the Scottish Crown Estate, in both urban and rural areas **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent and implementing development projects in the rural, coastal and urban areas of the estate.				
Climatic factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will consider opportunities to be low carbon or carbon-neutral.	+
	Support actions which contribute to targets for reducing greenhouse gas emissions.	Rural areas will be affected by more unpredictable and extreme weather events such as heavier rain days, hotter temperatures and higher wind speeds.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will consider opportunities to include high energy efficiency standards or low carbon energy sources.	
	Support climate change adaptation.	With temperature rises, urban areas will become even hotter than surrounding areas due to the added effect of the urban heat island. Climate change adaptation is significant for rural, coastal and urban communities.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will include adaptation measures such as energy efficient buildings, the creation of greenspaces, building/improving flood defences, and, sustainable drainage systems for surface water runoff.	
Cultural heritage and the historic environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Eight designated wreck sites have been identified around the coast; nine Scheduled Monuments (including seven wrecks in Scapa Flow); four listed lighthouses; and, 13 sites designated under the *Protection of Military Remains Act 1986*. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. The four rural estates contain a number of designated and undesignated heritage assets including	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will avoid adverse impacts on designated and undesignated heritage assets and, where appropriate, will reuse/enhance listed buildings where appropriate. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on the historic environment.	+

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 1:** Crown Estate Scotland apply/receive planning consent and implement development projects across the Scottish Crown Estate, in both urban and rural areas **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent and implementing development projects in the rural, coastal and urban areas of the estate.				
	Improve the quality of the wider built environment.	Battlefields; listed buildings; Historic Garden and Designed Landscapes; and, Scheduled Monuments.	With Crown Estate Scotland's involvement, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that new developments are designed to complement the local built environment. The refurbishment of 39 George Street, Edinburgh will have a positive effect on improving the built environment but is not considered to result in a significant effect.	
Landscape and geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of the NSAs containing some form of coastal or marine element. There are two National Parks (which are also NSAs) covering a combined 5,665km^2 and are also recognised for their geodiversity value; three Regional Parks; and 40 Country Parks in Scotland. The Mines Royal is spread across the country and covers an area of 6,696.43km^2.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments are likely to avoid the most scenic and sensitive seascapes and landscapes and create and/or retain landscape boundaries such as hedgerows/trees to minimise impacts on visual amenity. It is expected that new developments will be designed to take into consideration adjacent Crown Estate Scotland assets to help ensure that visual impacts do not occur. With Crown Estate Scotland's involvement, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that local landscape/seascape issues have been considered. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on biodiversity.	+
	Protect geological sites of national, regional or local importance.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments are likely to avoid adverse impacts on important geodiversity sites.	0
Material assets	Avoid adversely impacting on material assets.	Potential for development proposals to impact on the water supply and other material assets such as aggregates for buildings.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will avoid adversely impacting on material assets.	0
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 20 – Alternative 2

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 2:** CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent but selling land with planning consent in the rural, coastal and urban areas of the estate.				
SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, flora and fauna	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for new developments within the existing estate to interact with designated and sensitive areas, particularly in the rural and coastal environments. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets. There are two SACs, one Ramsar site, and five SSSIs within the four rural estates as well as several designated and sensitive areas adjacent to and within close proximity to Crown Estate Scotland's rural assets.	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is likely that such proposals will deliver environmental benefits through the creation and/or retention of important habitats for biodiversity. It is expected that proposals will be designed to take into consideration adjacent Crown Estate Scotland assets to help ensure that habitat fragmentation does not occur. With Crown Estate Scotland's involvement at planning application stage, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that local biodiversity issues have been considered. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the delivery of the biodiversity benefits identified above. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on biodiversity.	+?/-?
Population and human health	Avoid adverse effects on health and quality of life. Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast". There are 507 tenants across the four rural estates. Generally the rural areas have low population densities with lower numbers of younger people	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and social considerations. The design of new developments are likely to support the needs of the local community, for example, through providing affordable housing which would allow rural areas to retain their younger generation thereby contributing to balanced communities. The development of affordable housing would also support land-based businesses in the local community which would enhance the rural economy and reduce social exclusion/ deprivation. Crown Estate Scotland's involvement in the design of development proposals would help to ensure that the future use of the land would be complementary to existing business streams and may result in joint-	+?/-?

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 2:** CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent but selling land with planning consent in the rural, coastal and urban areas of the estate.				
		compared to urban areas.	working with community organisations and Local Authorities. However, as Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the delivery of developments that support the needs of the local community or that complement existing business streams.	
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	This Action has the potential to affect a range of coastal, upland and lowland soil types, including Class 1 and 2 peatland habitats.	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is expected that new developments will protect valuable soil resources. It is expected that proposals will be designed to take into consideration adjacent Crown Estate Scotland assets thereby reducing potential impacts on adjacent sites' soil quality and stability. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty that valuable soil resources will be avoided. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on soil resources.	0/-?
	Reduce vacant and derelict land and buildings.		Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is expected that new developments will support the use of vacant and derelict land and buildings, where appropriate.	0/+?/-?
Water	Protect and enhance the state of the water environment.	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK. Just under half of Scotland's rivers are now of good or high status. A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is expected that new developments will be designed to protect the water environment. However, as Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the protection of water resources. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on the water environment.	0/-?
	Avoid and reduce flood risk both presently and taking into account		It is expected that new developments will be designed to avoid flood risk areas and may incorporate sustainable drainage technology or coastal flood defences to reduce the risk of surface water and coastal flooding	0/+?/-?

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 2:** CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent but selling land with planning consent in the rural, coastal and urban areas of the estate.				
	climate change.	water quality.	both presently and in the future. It is expected that proposals will be designed to take into consideration adjacent Crown Estate Scotland assets which may be affected by the development and creation of impermeable surfaces. With Crown Estate Scotland's involvement at planning application stage, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that local flooding issues have been considered. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the avoidance of flood risk areas and the incorporation of mitigation measures such as coastal defences and sustainable drainage systems.	
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA. Improve air quality and reduce levels of nuisance associated with poor air quality.	There are a total of 38 Air Quality Management Areas across 14 local authorities with the majority of these AQMA concentrated in densely populated, urban locations. Coastal areas experience traffic related air pollution from ships, lorries, and private vehicles. The four local authorities which contain the four rural estates currently have no AQMAs declared.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments will avoid areas where there is an AQMA declared. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design and future use of the developments may be altered resulting in less certainty regarding impacts on air quality. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on air quality.	0/-?
Climatic factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry. Support actions which contribute to targets for reducing greenhouse gas emissions.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Rural areas will be affected by more unpredictable and extreme weather events such as heavier rain days, hotter temperatures and higher wind speeds. With temperature rises, urban areas	It is expected that new developments will be designed to be low carbon or carbon-neutral. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the emission of greenhouse gases. It is expected that new developments will be designed to include high energy efficiency standards or low carbon energy sources. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the incorporation of high energy	0/+?/-?

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 2:** CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent but selling land with planning consent in the rural, coastal and urban areas of the estate.				
		will become even hotter than surrounding areas due to the added effect of the urban heat island. Climate change adaptation is significant for rural, coastal and urban communities.	efficiency standards.	
	Support climate change adaptation.		It is expected that new developments will be designed to incorporate appropriate adaptation measures such as energy efficient buildings, the creation of greenspaces, building/improving flood defences, and, sustainable drainage systems for surface water runoff. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the delivery of climate change adaptation measures.	
Cultural heritage and the historic environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Eight designated wreck sites have been identified around the coast; nine Scheduled Monuments (including seven wrecks in Scapa Flow); four listed lighthouses; and, 13 sites designated under the *Protection of Military Remains Act 1986*. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. The four rural estates contain a number of designated and undesignated heritage assets including Battlefields; listed buildings; Historic Garden and Designed Landscapes; and, Scheduled Monuments.	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is likely that such proposals will be designed to avoid adverse impacts on designated and undesignated heritage assets and will, where appropriate, reuse/enhance listed buildings. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the avoidance of designated and undesignated heritage assets or the reuse/enhancement of listed buildings. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on the historic environment.	0/+?/-?
	Improve the quality of the wider built environment.		With Crown Estate Scotland's involvement at planning application stage, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which will help ensure that new developments are designed to complement the local built environment. The refurbishment of 39 George Street, Edinburgh will have a positive effect on improving the built environment but is not considered to result	

Action 20: Implement development projects on the existing estate (likely to include a mix of uses including residential and industrial). **Alternative 2:** CES apply/receive planning consent but do not implement development projects across the Scottish Crown Estate **Spatial extent and scale of asset affected:** This action will focus on Crown Estate Scotland gaining planning consent but selling land with planning consent in the rural, coastal and urban areas of the estate.				
			in a significant effect.	
Landscape and geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of the NSAs containing some form of coastal or marine element. There are two National Parks (which are also NSAs) covering a combined 5,665km^2 and are also recognised for their geodiversity value; three Regional Parks; and 40 Country Parks in Scotland. The Mines Royal is spread across the country and covers an area of 6,696.43km^2.	Crown Estate Scotland will be involved in the design of proposals and therefore proposals must reflect their values of balancing commercial and environmental considerations. It is likely that such proposals will be designed to avoid adverse impacts on sensitive and valued landscapes/seascapes and will deliver environmental benefits through the creation and/or retention of landscape boundaries such as hedgerows and trees. It is expected that proposals will be designed to take into consideration adjacent Crown Estate Scotland assets to help minimise potential impacts on visual amenity. With Crown Estate Scotland's involvement at planning application stage, it is likely that local communities, local authorities and other public sector bodies will have been engaged in the design process which would help ensure that local landscape/seascape issues have been considered. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in less certainty regarding the avoidance of sensitive and valued landscapes. The refurbishment of 39 George Street, Edinburgh is unlikely to have a significant effect on landscape/seascape.	+?/-?
	Protect geological sites of national, regional or local importance.		To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, it is expected that new developments are likely to avoid adverse impacts on important geodiversity sites.	0/-?
Material assets	Avoid adversely impacting on material assets.	Potential for development proposals to impact on the water supply and other material assets such as aggregates for buildings.	To reflect Crown Estate Scotland's values of balancing commercial and environmental considerations, the design of proposed developments are likely to avoid adversely impacting on material assets. As Crown Estate Scotland is not implementing the development projects, there is a possibility that the design of the developments may be altered resulting in adverse impacts on material assets.	0/-?
	Enhance material assets and support the sustainable use and management of existing material assets.			

Action 21 – Alternative 1

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy.
Alternative 1: Involvement of communities and partners in further developing and implementing projects

Spatial extent and scale of asset affected: The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 15.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for local regeneration projects to result in interaction with designated and sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	Most implemented projects are unlikely to have a significant effect on biodiversity, flora and fauna. Some implemented projects could have a minor negative effect on biodiversity, particularly in more rural coastal areas. There is, however, potential for locally generated project in particular to include habitat creation or compensation in the form of biodiversity net gain. Opportunity to encourage communities and partners to engage with biodiversity issues and local identifying and progressing potential projects – minor positive effect.	-/+
Population and Human Health	Avoid adverse effects on health and quality of life Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	Implemented projects could have minor adverse impacts on health, quality of life or the quality of local environment, for example through noise or pollution associated with traffic generation, or the loss of locally important open space. There is also potential for positive effects where projects help address existing impacts on quality of life, create new greenspaces or encourage active outdoor recreation. These benefits are likely to be greatest where local communities have played a role in identifying and implementing the project in question.	-/+/++
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.	Most implemented projects are unlikely to have a significant effect on soils. Some implemented projects could have minor negative effects on soil resources particularly in rural coastal areas with sensitive or rare soils.	0/-
	Reduce vacant and derelict land and buildings.		Most implemented projects are unlikely to have a significant effect on vacant and derelict land and buildings. Implemented projects could have a minor positive effect in reducing	0/+

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy. **Alternative 1:** Involvement of communities and partners in further developing and implementing projects **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 15.				
			vacant and derelict land and buildings. This effect could be enhanced where projects include those identified and progressed with the involvement of local communities and partners.	
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Most implemented projects are unlikely to have significant effects on water quality, water resources as a consequence of their scale, type and location. It is possible that some projects could have minor negative effects depending on the activity in question, and water quality and resource issues in the area in question.	0/-
	Avoid and reduce flood risk both presently and taking into account climate change.		Most implemented projects are unlikely to have significant effects on flood risk. Some implemented projects could have minor negative effect where they increase surface water run-off or increase the risk of people being exposed to flood risk. Projects could also have a neutral or positive effects on flood risk, for example by incorporating sustainable drainage technology or building in anticipation of increased future flood risk.	0/-/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	Most implemented projects will have no significant effects on air quality. Some implemented projects could have minor adverse effects on air quality, for example where they are located within or close to an AQMA or other areas with poorer air quality, and where the development in question leads directly or indirectly (e.g. through traffic generation) to increased air pollution.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	It is likely that some implemented projects will result in greenhouse gas emissions during construction, operation and ultimately their decommissioning. Major emissions are considered unlikely Some implemented projects are likely to be designed to be carbon neutral or negative. These are judged to be potential effects of minor significance given the scale and types of development likely to be progressed.	-/+

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy. **Alternative 1:** Involvement of communities and partners in further developing and implementing projects **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 15.				
	Support actions which contribute to targets for reducing greenhouse gas emissions.		It is likely that many implemented projects will help reduce greenhouse emissions by adopting high energy efficiency standards or low carbon energy sources. Some projects may bring more significant reductions particularly if focused around community scale energy generation or projects to increase carbon sequestration. This effect could be enhanced where projects include those identified and progressed with the involvement of local communities and partners.	0/+/++
	Support climate change adaptation.		It is likely that many implemented projects will support climate change adaptation, where relevant. This could include measures to manage surface water runoff, ensure buildings can cope with projected rainfall and are located to avoid future flood risk. It could also include creation of greenspace in communities or measures to help species adapt. This effect could be enhanced where projects include those identified and progressed with the involvement of local communities and partners.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment.	Most implemented projects are unlikely to have a significant effect on sensitive cultural assets. It is possible that some projects could have a minor negative effect as a result, for example, of impacts on undesignated or previously unknown historic assets. There could also be positive effects where historic buildings, sites or other assets are brought into positive use or management and where implemented projects create new opportunities for understanding and awareness of the historic environment. This effect could be enhanced where projects include those identified and progressed with the involvement of local communities and partners.	0/-/+

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy. **Alternative 1:** Involvement of communities and partners in further developing and implementing projects **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km^2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 15.				
	Improve the quality of the wider built environment.	Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations	Most implemented projects should make a positive effect to the quality of the wider environment. This effect could be enhanced where projects include those identified and progressed with the involvement of local communities and partners.	0/+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	Most implemented projects are unlikely to have a significant effect on landscape and seascape character. It is, however, possible that some implemented projects could have a negative impact on landscape and / or seascape character, particular where they are located within or close to a National Scenic Area or locally sensitive area of coastline.	0/-
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Most implemented projects are unlikely to have a significant effect on geological sites of national, regional or local importance. Some potential for minor impacts remains however. There could be minor positive effects where projects create opportunities increase understanding and awareness of geodiversity.	0/-/+
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Most implemented projects are unlikely to have a significant effect on existing material assets. Some potential for minor impacts remains however.	0/-
	Enhance material assets and support the sustainable use and management of existing material assets.		Some implemented projects could enhance material assets, for example through renewable energy development or schemes to promote recycling and re-use. Such benefits are likely to be greatest where local communities have played a role in identifying and implementing the project in question.	0/+

Action 21 – Alternative 2

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy **Alternative 2**: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 1				
SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	There is potential for local regeneration projects to result in interaction with designated and sensitive areas in the coastal environment. There are 18 Nature Conservation Marine Protected Areas as well as a significant amount of coastal SAC and Ramsar sites which lie within Crown Estate Scotland's coastal assets.	Most implemented projects are unlikely to have a significant effect on biodiversity, flora and fauna. Some implemented projects could have a minor negative effect on biodiversity, particularly in more rural coastal areas. There is, however, potential for projects to include habitat creation or compensation in the form of biodiversity net gain. By not involving local communities and stakeholders, it is possible that some opportunities to enhance local biodiversity will not be identified and the scale of positive effect reduced as a consequence.	0/-/+
Population and Human Health	Avoid adverse effects on health and quality of life Improve the health and living environment of people and communities. Retain and improve quality, quantity and connectivity of publicly accessible open space.	It is estimated that 41% of the total population live within 5km of the coast. The majority of the coastal population (68%) lives within the "developed coast" which comprises urban areas. A further 18% live in the isolated coast and the remaining 14% living within "undeveloped coast".	Implemented projects could have minor adverse impacts on health, quality of life or the quality of local environment, for example through noise or pollution associated with traffic generation, or the loss of locally important open space. There is also potential for positive effects where projects help address existing impacts on quality of life, create new greenspaces or encourage active outdoor recreation. By not involving local communities and stakeholders, it is possible that some opportunities will not be identified, or benefits less significant (use of new assets likely to be greatest where communities involved and have ownership. Benefits for individuals and communities are likely to be lower where there is no involvement in projects	-/+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Coastal erosion is an issue for some areas of coastline, with patterns of erosion and deposition being influenced by sea level rise. Coastal areas contain a number of rare	Most implemented projects are unlikely to have a significant effect on soils. Some implemented projects could have minor negative effects on soil resources particularly in rural coastal areas with sensitive or rare soils.	0/-

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy **Alternative 2**: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 1				
		coastal soils ranging from calcareous environments along the West Highland, Inner and Outer Hebrides to saline alluvial soils found along the east coast of Scotland.		
	Reduce vacant and derelict land and buildings.		Most implemented projects are unlikely to have a significant effect on vacant and derelict land and buildings. Implemented projects could have a minor positive effect in reducing vacant and derelict land and buildings. By not involving local communities and stakeholders, it is possible that some opportunities will not be identified or suitable proposals brought forward.	0/+
Water	Protect and enhance the state of the water environment.	A significant proportion (approximately 97%) of Scotland's coastal waters is in good or high condition. Additionally, Scotland's seas are deemed to have good or better ecological status and water quality.	Most implemented projects are unlikely to have significant effects on water quality, water resources as a consequence of their scale, type and location. It is possible that some projects could have minor negative effects depending on the activity in question, and water quality and resource issues in the area in question.	0/-
	Avoid and reduce flood risk both presently and taking into account climate change.		Most implemented projects are unlikely to have significant effects on flood risk. Some implemented projects could have minor negative effect where they increase surface water run-off or increase the risk of people being exposed to flood risk. Projects could also have neutral or positive effects on flood risk, for example by incorporating sustainable drainage technology or building in anticipation of increased future flood risk.	0/-/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA such as the City of Dundee, which includes the port area.	Most implemented projects will have no significant effects on air quality. Some implemented projects could have minor adverse effects on air quality, for example where they are located within or close to an AQMA or other areas with poorer air quality, and where the development in question leads directly or indirectly (e.g. through traffic generation) to increased air pollution.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy **Alternative 2**: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 1				
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland. The effects of sea level rise will be particularly significant in coastal locations. Climate change adaptation in coastal communities is also a significant issue, reflecting their vulnerability to sea level rise.	It is likely that some implemented projects will result in greenhouse gas emissions during construction, operation and ultimately their decommissioning. Major emissions are considered unlikely Some implemented projects are likely to be designed to be carbon neutral or negative. These are judged to be potential effects of minor significance given the scale and types of development likely to be progressed.	-/+
	Support actions which contribute to targets for reducing greenhouse gas emissions.		It is likely that many implemented projects will help reduce greenhouse emissions by adopting high energy efficiency standards or low carbon energy sources. By not involving local communities and stakeholders, it is possible that some opportunities for carbon reduction, clean energy generation or carbon sequestration may not be identified or brought forward, reducing the likely scale of positive effect.	0/+
	Support climate change adaptation.		It is likely that many implemented projects will support climate change adaptation, where relevant. This could include measures to manage surface water runoff, ensure buildings can cope with projected rainfall and are located to avoid future flood risk. It could also include creation of greenspace in communities or measures to help species adapt. By not involving local communities and stakeholders, it is possible that some local scale adaptation opportunities will be missed, along with wider awareness raising of the need for climate adaptation.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected	There is potential for interaction with designated and sensitive areas. In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations.	Most implemented projects are unlikely to have a significant effect on sensitive cultural assets. It is possible that some projects could have a minor negative effect as a result, for example, of impacts on undesignated or previously unknown historic assets. There could also be positive effects where historic buildings, sites or other assets are brought into positive use or management and where implemented projects create new opportunities for understanding and awareness of the historic environment. By not involving local communities and stakeholders, it is possible that some local opportunities could be missed.	0/-/+

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy **Alternative 2**: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 1				
	Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations		
	Improve the quality of the wider built environment.		Most implemented projects should make a positive effect to the quality of the wider environment. By not involving local communities and stakeholders, it is possible that some opportunities for local environmental enhancement may not be identified or brought forward.	0/+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks.	Most implemented projects are unlikely to have a significant effect on landscape and seascape character. It is, however, possible that some implemented projects could have a negative impact on landscape and / or seascape character, particular where they are located within or close to a National Scenic Area or locally sensitive area of coastline.	0/+
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	Most implemented projects are unlikely to have a significant effect on geological sites of national, regional or local importance. Some potential for minor impacts remains however. There could be minor positive effects where projects create opportunities increase understanding and awareness of geodiversity.	0/-/+
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Most implemented projects are unlikely to have a significant effect on existing material assets. Some potential for minor impacts remains however.	0/-
	Enhance material assets and support the sustainable use and management of existing			

Action 21: Explore and further opportunities for joint development activities with partners, including coastal regeneration projects, as part of wider investment strategy **Alternative 2**: Crown Estate Scotland progresses project proposals without the involvement of communities and local partners. **Spatial extent and scale of asset affected:** The focus of this action would be in coastal areas. Crown Estate Scotland's coastal assets which span 590 km2 of Scotland's foreshore. This action will further identify, appraise and develop local regeneration and sustainability projects proposed or developed in partnership with local communities or other partners, including those identified through the challenge fund associated with Action 1				
	material assets.			

Strategic Objective 3 - Invest in innovation and work with tenants to enable sustainable natural resource use

Action 23 – Alternative 1

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 1: Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	A significant part of this Action focuses on promoting the adoption of a Natural Capital approach by tenants and other partners. This is likely to result in significant, though indirect, positive effects on biodiversity, flora and fauna. Work with pilots to demonstrate and evaluate the value of a Natural Capital approach is likely to result in minor positive effects, and wider indirect positive effects as the pilots raise awareness more widely. The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications. This should, in turn, result in more positive outcomes for biodiversity, flora and fauna.	++
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			++
Population and Human Health	Avoid adverse effects on health and quality of life.	This Action could affect a wide range of rural and peri-urban communities, together with land managers and other Crown Estate Scotland tenants.	Embedding a Natural Capital approach in management of the Scottish Crown Estate, investment decisions and the actions of tenants and partners should result in healthier ecosystems, enhanced ecosystem services and the socio-economic benefits they provide. This should support people's quality of life and their health and well-being.	++
	Improve the health and living environment of people and communities.			++

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience. **Alternative 1:** Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate **Spatial extent and scale of asset affected:** The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.				
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		It is likely that a Natural Capital approach will enhance the quality of accessible parts of the Rural Estate and could lead to additional access provision.	++
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland. This Action has potential to affect a range of upland and lowland soil types in other parts of the Scottish Crown Estate.	A significant part of this Action focuses on promoting the adoption of a Natural Capital approach by tenants and other partners. This is likely to result in positive, though indirect, effects. Work with pilots to demonstrate and evaluate the value of a Natural Capital approach is likely to result in minor positive effects, and wider indirect positive effects as the pilots raise awareness of sustainable soil management and its benefits more widely. The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social and economic implications. This should, in turn, promote sustainable management of soils.	++
	Reduce vacant and derelict land and buildings.		It is possible that by considering Natural Capital in management and investment decisions, opportunities to restore ecosystems on currently vacant or underused land will be identified and progressed, or the risk of future abandonment avoided.	+
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the	A significant part of this Action focuses on promoting the adoption of a Natural Capital approach by tenants and other partners. This is likely to result in significant, though indirect, positive effects.	++
	Avoid and reduce flood risk both presently and taking into account climate change.		Work with pilots to demonstrate and evaluate the value of a Natural Capital approach is likely to result in minor positive effects, and wider indirect positive effects as the pilots raise awareness more widely. The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social	++

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 1: Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

		releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	and economic implications. This should, in turn, result in more positive outcomes for the health of the water environment, including sustainable flood management.	
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality in most rural areas is good, with transport forming the main source of pollutant emissions.	It is possible that by considering Natural Capital in management and investment decisions will lead to action that contributes to improved air quality (e.g. tree planting or reductions in wind borne soil erosion). However, given the good air quality across most of the Scottish Crown Estate, this is likely to be a minor positive effect at most.	+
	Improve air quality and reduce levels of nuisance associated with poor air quality.			+
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	A significant part of this Action focuses on promoting the adoption of a Natural Capital approach by tenants and other partners. This is likely to result in significant, though indirect, positive effects by reducing carbon emissions and, in particular, enhancing the potential of ecosystems to retain, absorb and store atmospheric carbon. This could include for, example, changes in soil management, woodland expansion or restoration of peatlands. More resilient ecosystems will help to avoid release of carbon as a result of gradual climate change or extreme events.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		Work with pilots to demonstrate and evaluate the value of a Natural Capital approach is likely to result in minor positive effects, and wider indirect positive effects as the pilots raise awareness of carbon management more widely. The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions support carbon reduction.	++
	Support climate change adaptation.		A significant part of this Action focuses on promoting the adoption of a Natural Capital approach by tenants and other partners. This is likely to result in significant, though indirect, positive effects as habitats become more resilient to climate change, species are able to adapt to changing	++

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience. **Alternative 1:** Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate **Spatial extent and scale of asset affected:** The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.				
			conditions and the role of the natural environment in mitigating climate risks such as flooding are enhanced. Work with pilots to demonstrate and evaluate the value of a Natural Capital approach is likely to result in minor positive effects, and wider indirect positive effects as the pilots raise awareness more widely. The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social and economic implications. This should, in turn, result in more positive outcomes by helping ecosystems across the Estate become more resilient to the changing climate.	
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	The rural estates contain a variety of significant historic sites including listed buildings, scheduled monuments, battlefields and historic gardens and designed landscapes.	It is possible that considering Natural Capital in decision-making could have adverse impacts on the historic environment. Woodland expansion, for example, while delivering biodiversity, flood management, carbon and landscape benefits could affect historic sites or affect their setting. This is most likely where historic assets are undesignated or currently unknown. Given the protection provided to designated historic sites and assets, this is judged to be a potential negative effect of minor significance.	-
	Improve the quality of the wider built		This action is likely to have a minor and indirect positive effect on the quality of the built environment, for example by reducing downstream	+

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 1: Include actions to involve tenants and other partners to raise awareness and embed the approach across the Scottish Crown Estate

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

	environment.		flood risk or providing energy supporting the transition to a low carbon economy.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	Natural Capital considerations should take account of the role of ecosystems in contributing to sense of place (landscape character), so an approach that supports healthy and resilient ecosystems should contribute positively to landscape character and quality. There is potential, however, for some measures, for example woodland expansion to deliver biodiversity, flood management and, carbon benefits to result in a potential negative effect of minor significance on the visual and landscape characteristics of a particular area.	++/-
	Protect geological sites of national, regional or local importance.		It is unlikely that considering Natural Capital in management and investment decisions will have adverse impacts on geological sites of national, regional or local importance. There may be opportunities to better manage geodiversity sites, or improve public access or interpretation.	0/+
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Considering Natural Capital in decision-making will promote the sustainable use of natural assets and could help identify and realise opportunities to enhance material assets, for example by supporting healthier soils in food production or the development of renewable energy schemes which can be accommodated within existing ecosystems. Effects are likely to be positive and result from Crown Estate Scotland's own management and investment decisions, work with tenants through pilot projects and through wider work to raise awareness and share knowledge.	++
	Enhance material assets and support the sustainable use and management of existing material assets.			++

Action 23 – Alternative 2

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 2: Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners.

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	This would be focused within the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2. The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications. This should, in turn, result in more positive outcomes for biodiversity, flora and fauna. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects.	+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			+
Population and Human Health	Avoid adverse effects on health and quality of life.	This Action could affect a wide range of rural and peri-urban communities, together with land managers and other Crown Estate Scotland tenants.	Considering Natural Capital in management of the Scottish Crown Estate, and investment decisions should result in healthier ecosystems, enhanced ecosystem services and the socio-economic benefits they provide. This should support people's quality of life and their health and well-being.	+
	Improve the health and living environment of			+

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 2: Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners.

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

	people and communities.		Considering Natural Capital will enhance the quality of accessible parts of the Rural Estate and could lead to additional access provision.	
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland. This Action has potential to affect a range of upland and lowland soil types in other parts of the Scottish Crown Estate.	The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social and economic implications. This should, in turn, promote sustainable management of soils. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects.	+
	Reduce vacant and derelict land and buildings.		It is possible that considering Natural Capital in management and investment decisions, opportunities to restore ecosystems on currently vacant or underused land will be identified and progressed, or the risk of future abandonment avoided.	+
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have	The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social and economic implications. This should, in turn, result in more positive outcomes for the health of the water environment, including sustainable flood management. Practical implementation may be hindered by a lack of involvement and	+
	Avoid and reduce flood risk both presently and taking into account climate change.			+

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 2: Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners.

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

		been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	awareness on the part of tenants and other partners, reducing the potential for positive effects.	
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality in most rural areas is good, with transport forming the main source of pollutant emissions.	It is possible that considering Natural Capital in management and investment decisions will lead to action that contribute to improved air quality (e.g. tree planting or reductions in wind borne soil erosion). However, given the good air quality across most of the Scottish Crown Estate, this is likely to be a minor positive effect at most.	+
	Improve air quality and reduce levels of nuisance associated with poor air quality.			+
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions support carbon reduction. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects.	+
	Support actions which contribute to targets for reducing greenhouse gas emissions.			+
	Support climate change adaptation.		The commitment to undertake a Natural Capital assessment of the Scottish Crown Estate, highlighting dependencies and impacts on natural capital, has potential to influence positively the wider work of Crown Estate Scotland, helping to ensure that management and investment decisions take account of the Natural Capital implications, including social and economic implications. This should, in turn, result in more positive outcomes by helping ecosystems across the Estate become more resilient	+

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience.

Alternative 2: Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners.

Spatial extent and scale of asset affected: The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.

			to the changing climate. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects.	
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	The rural estates contain a variety of significant historic sites including listed buildings, scheduled monuments, battlefields and historic gardens and designed landscapes.	It is possible that considering Natural Capital in decision-making could have adverse impacts on the historic environment. Woodland expansion, for example, while delivering biodiversity, flood management, carbon and landscape benefits could affect historic sites or affect their setting. This is most likely where historic assets are undesignated or currently unknown. Given the protection provided to designated historic sites and assets, this is judged to be a potential negative effect of minor significance	-
	Improve the quality of the wider built environment.		This action is likely to have a minor and indirect postive effect on the quality of the built environment, for example by reducing downstream flood risk or providing energy supporting the transition to a low carbon economy.	+

Action 23: Promote sustainable use of natural resources and position Crown Estate Scotland as a leader in Natural Capital management in Scotland with a focus on biodiversity, soil and water health, biosecurity, carbon and environmental/ecosystem resilience. **Alternative 2:** Crown Estate Scotland considers Natural Capital with respect to its own activities and decisions without measures to raise awareness and support adoption by tenants and other partners. **Spatial extent and scale of asset affected:** The main focus of this Action is Crown Estate Scotland's four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2), encompassing activities including agriculture, forestry, recreation and field sports. It could also relate to minerals and Mines Royal leasing and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action aims to embed a Natural Capital Approach by developing a programme of support, including workshops, working with pilot projects, hosting conferences, completing a Natural Capital assessment of Crown Estate Scotland assets and working with tenants and partners to embed the natural capital approach.				
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	Considering Natural Capital in decisions should take account of the role of ecosystems in contributing to sense of place (landscape character), so an approach that supports healthy and resilient ecosystems should contribute positively to landscape character and quality. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects. There is potential, however, for some measures, for example woodland expansion to deliver biodiversity, flood management, and carbon benefits to result in a potential negative effect of minor significance on the visual and landscape characteristics of a particular area.	+/-
	Protect geological sites of national, regional or local importance.		It is unlikely that consideration of Natural Capital in management and investment decisions will have adverse impacts on geological sites of national, regional or local importance. There may be opportunities to better manage geodiversity sites, or improve public access or interpretation.	0/+
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	Considering Natural Capital in decisions will promote the sustainable use of natural assets and could help identify and realise opportunities to enhance material assets, for example by supporting healthier soils in food production or the development of renewable energy schemes which can be accommodated within existing ecosystems. Effects are likely to positive and result from Crown Estate Scotland's own management and investment decisions. Practical implementation may be hindered by a lack of involvement and awareness on the part of tenants and other partners, reducing the potential for positive effects.	+
	Enhance material assets and support the sustainable use and management of existing material assets.			+

Action 25 – Alternative 1

Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).
Alternative 1: Rural Assets Strategy with a stronger economic focus

Spatial extent and scale of asset affected: This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong economic focus to invest in rural land holdings and develop partnership with tenants and investments partners to generate return.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	The economically focused Rural Assets Strategy may have potential significant negative impacts as continued economic activity and the investment and improvement of infrastructure may put pressure on sensitive terrestrial and aquatic habitats and species as well as green spaces. However, the strategy focuses on enhanced sustainability which may minimise significant negative effects. Crown Estate Scotland's commitment to align with planning policy will also help to ensure significant adverse effects are minimised.	-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			-
Population and Human Health	Avoid adverse effects on health and quality of life.	An estimated 354,060 people live across the four council areas (Dumfries and Galloway, Moray, Midlothian and the Cairngorms National Park) where the four rural estates are located.	This action would involve increased improvements in infrastructure, repairs and residential properties. Capital raised for re-investment could also lead to projects which may benefit rural residents and communities with indirect economic benefits for residents. It is anticipated that this will have a direct and positive impact on local communities and tenants of the four estates through the improvement of housing stock and the living environment with potential to improve quality of life.	+
	Improve the health and living environment of people and communities.			+
	Retain and improve quality, quantity and		This action could include investments and projects which may retain and improve public accessibility.	-/+

Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties). **Alternative 1:** Rural Assets Strategy with a stronger economic focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong economic focus to invest in rural land holdings and develop partnership with tenants and investments partners to generate return.				
	connectivity of publicly accessible open space.		However, minor negatives may arise dependent on the investment and subsequent associated activities which could impact upon quality, quantity and connectivity.	
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland.	The Rural Assets Strategy is primarily focused on the enhancement of economic productivity and sustainability across rural properties and communities. An economically focussed Rural Assets Strategy may be more likely to increase the construction and development of infrastructure as well as increased agricultural activity to support continued economic activity. It is possible that developments associated with investment brought forward through this action could have adverse impacts on soil, but these are likely to be local in nature and may not be of significance however the potential for minor negative effects may remain.	0/-
	Reduce vacant and derelict land and buildings.		A Rural Assets Strategy with a more economic focus is likely to include an increased level of development and investment, for example, the creation and improvement of infrastructure for farming tenants. It is possible that this action include projects which involve the reuse of vacant or derelict land and buildings.	0/+
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	The Rural Assets Strategy may have a minimal impact upon water resources across the four estates. The overall effect is identified as minimal.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		Investment and infrastructure could result in potential adverse effects, dependent on the location and design of infrastructure. However, Crown Estate Scotland's commitment to align with planning policy will also help to ensure adverse effects are minimised.	0
Air	Minimise air pollution, particularly where air	Air quality management areas are typically designated within specific	It is considered unlikely that the Rural Assets Strategy will have significant effects on air quality and an overall negligible effect is	0

Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties).

Alternative 1: Rural Assets Strategy with a stronger economic focus

Spatial extent and scale of asset affected: This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong economic focus to invest in rural land holdings and develop partnership with tenants and investments partners to generate return.

	quality is a known issue through the designation of an AQMA.	roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA.	identified.	
	Improve air quality and reduce levels of nuisance associated with poor air quality.		It is considered unlikely that the Rural Assets Strategy will have significant effects on air quality and an overall negligible effect is identified.	0
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	The Rural Assets Strategy with a strong economic focus would may identify and support actions which will contribute to reducing greenhouse gases. As part of a Rural Assets Strategy with a strong economic focus, the investment in residential properties may include energy efficiency improvements to the minimum required standard while investments may include partnerships of renewable energy such as wind and solar.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		The introduction of the Rural Assets Strategy may identify and prioritise the need to adapt new and existing rural assets to the changing climate including rising summer temperatures, increased rainfall and more extreme weather events. Capital investments are expected to include partnership with renewable energy developers which may lead to the development of solar and wind power in selected locations across the estates. Considering the scale of the proposed actions, a minor positive effect is identified.	0/+
	Support climate change adaptation.		The Rural Assets Strategy with a strong economic focus would may identify and support actions which will contribute to reducing greenhouse gases. As part of a Rural Assets Strategy with a strong economic focus, the investment in residential properties may include energy efficiency improvements to the minimum required standard while investments may include partnerships of renewable energy such as wind and solar.	+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate.	The delivery of the Rural Assets Strategy may include investment which could cause minor adverse impacts on cultural heritage. However, reflecting the environmental protections put in place to	0

Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties). **Alternative 1:** Rural Assets Strategy with a stronger economic focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong economic focus to invest in rural land holdings and develop partnership with tenants and investments partners to generate return.				
	contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings.	safeguard cultural heritage assets and their setting, it is anticipated that the overall effect is negligible.	
	Improve the quality of the wider built environment.		Most implemented projects should make a positive contribution to the quality of the wider built environment. Investment in Scotland's rural economies may lead to the creation of new infrastructure to support the enhancement of productivity and sustainability in selected locations across the rural estates.	+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	The delivery of the Rural Assets Strategy may include investment which could cause minor adverse impacts on cultural heritage. However, reflecting the environmental protections put in place to safeguard landscape and geodiversity, it is anticipated that the overall effect is negligible.	0
	Protect geological sites of national, regional or local importance.			0

Action 25: Deliver the Rural Assets Strategy to enhance economic productivity and sustainability across rural properties and communities (including capital raised for re-investment, investment in infrastructure and repairs, woodland creation and environmental enhancement and improvements to residential properties). **Alternative 1:** Rural Assets Strategy with a stronger economic focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong economic focus to invest in rural land holdings and develop partnership with tenants and investments partners to generate return.				
Material Assets	Avoid adversely impacting on material assets.	Agricultural and forestry operations across the four estates form a considerable part of Crown Estate Scotland's material assets. Crown Estate manages the rights to gold and silver across most of Scotland. The Mines Royal covers approximately 6696.43km^2. Crown Estate Scotland also hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets.	A Rural Assets Strategy with a strong economic focus is likely to have positive effects. This is likely to involve the improvement and development of new buildings includes a conditions survey which will identify record and prioritise renovations and structural repairs.	+
	Enhance material assets and support the sustainable use and management of existing material assets.		The implementation of a Rural Assets Strategy with a strong economic focus will prioritise the enhancement of Crown Estate Scotland's material assets. There may be opportunities to improve energy efficiency The investment in infrastructure will enable it to meet the demand created by the proposal and future-proof it for further development proposals in the future.	+

Action 25 – Alternative 2

Action 25: Deliver the Rural Assets Strategy to enhance productivity and sustainability in Scotland's rural economies and communities (including capital raised for re-investment, capital investment programme and improvements to residential properties)

Alternative 2: Rural Assets Strategy with a stronger environmental focus

Spatial extent and scale of asset affected: This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong environmental focus to enhance productivity and sustainability in rural economies and communities.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	An environmentally focused Rural Assets Strategy would include a Natural Capital Approach. The inclusion of Natural Capital approach to the Rural Assets Strategy may identify dependencies and impacts on natural capital, potentially having a positive influence on the wider work associated with the strategy. This may help to ensure that management and investment decisions take account of the Natural Capital implications which may lead to long term significant positive impacts for biodiversity, fauna and flora.	++
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.		The environmentally focused Rural Asset would include the creation and improvement of new woodland. This would have significant benefits in maintaining and enhancing wildlife corridors and minimising fragmentation of ecological areas and green spaces.	++
Population and Human Health	Avoid adverse effects on health and quality of life.	An estimated 354,060 people live across the four council areas (Dumfries and Galloway, Moray, Midlothian and the Cairngorms National Park) where the four rural estates are located.	A Rural Assets Strategy with a strong environmental focus would prioritise the improvement in residential energy efficiency standards and woodland improvement and creation. This would have positive benefits in the improvement of housing stock which may improve quality of life and living conditions. The creation and improvement of woodland would also retain and improve the quality, quantity and connectivity of publicly accessible open space.	++
	Improve the health and living environment of people and communities.			++
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			++

Action 25: Deliver the Rural Assets Strategy to enhance productivity and sustainability in Scotland's rural economies and communities (including capital raised for re-investment, capital investment programme and improvements to residential properties) **Alternative 2:** Rural Assets Strategy with a stronger environmental focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong environmental focus to enhance productivity and sustainability in rural economies and communities.				
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland.	A Rural Assets Strategy with a strong economic focus would prioritise sustainability and promote a Natural Capital approach. The inclusion of Natural Capital approach to the Rural Assets Strategy may identify dependencies and impacts on natural capital, potentially having a positive influence on the wider work associated with the strategy. This may help to ensure that management and investment decisions take account of the Natural Capital implications which may lead to long term significant positive impacts for soil resources.	++
	Reduce vacant and derelict land and buildings.		A Rural Assets Strategy with a strong environmental focus may prioritise the reuse and redevelopment of vacant and derelict land.	0/+
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	This action would prioritise a Natural Capital Approach which may have positive benefits for the water environment. While this action may involve the creation of renewable energy developments, construction is likely to be localised and is not considered to have a significant effect.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.		The creation and improvement of woodland associated with this action may act as a natural flood defence; however this is dependent on the scale of this proposed activity.	0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA.	It is not anticipated that this action will have an effect on air quality.	0
	Improve air quality and reduce levels of nuisance associated with poor air		It is not anticipated that this action will have an effect on air quality.	0

Action 25: Deliver the Rural Assets Strategy to enhance productivity and sustainability in Scotland's rural economies and communities (including capital raised for re-investment, capital investment programme and improvements to residential properties) **Alternative 2:** Rural Assets Strategy with a stronger environmental focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong environmental focus to enhance productivity and sustainability in rural economies and communities.				
	quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	A Rural Assets Strategy with a strong environmental focus would prioritise woodland creation and improvement, the potential development of terrestrial renewable energy and energy efficiency improvements throughout rural, residential properties. Woodland improvement and creation may act as a carbon sink while renewable energy would reduce dependence on fossil fuel use across the four estates. Energy efficiency measures would reduce energy and heat demands. However this is dependent on the scale of these proposed measures. Overall, the effect may be negligible but minor positive effects would remain.	0/+
	Support actions which contribute to targets for reducing greenhouse gas emissions.		An environmentally focused Rural Assets Strategy may include the development of terrestrial renewable energy. This would contribute to the Scottish Governments low carbon and renewable energy targets however this is dependent on the number of renewable energy developments which are progressed.	0/+
	Support climate change adaptation.		Woodland improvement and creation could support climate change adaption by acting as natural flood management. The Rural Assets Strategy also aims to improve infrastructure and residential housing stock through repairs and renovations. This may result in more climate resilient homes and infrastructure.	0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate. Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2	The Rural Assets Strategy includes improvements to infrastructure and a completion of actions arising from the recently completed conditions survey. This may include repairs to Listed Buildings and a thorough record of the condition of buildings across the four estates.	+

Action 25: Deliver the Rural Assets Strategy to enhance productivity and sustainability in Scotland's rural economies and communities (including capital raised for re-investment, capital investment programme and improvements to residential properties) **Alternative 2:** Rural Assets Strategy with a stronger environmental focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong environmental focus to enhance productivity and sustainability in rural economies and communities.				
	Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings.		
	Improve the quality of the wider built environment.		Most implemented projects should make a positive contribution to the quality of the wider built environment. Investment in Scotland's rural economies may lead to the creation of new infrastructure to support the enhancement of productivity and sustainability in selected locations across the rural estates.	+
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	A Rural Assets Strategy with a strong economic focus would prioritise sustainability and promote a Natural Capital approach. This may help to ensure that management and investment decisions take account of the Natural Capital implications which may promote the protection of landscape and geodiversity across the four rural estates	0/+
	Protect geological sites of national, regional or local importance.			0/+
Material Assets	Avoid adversely impacting on material assets.	Agricultural and forestry operations across the four estates form a considerable part of Crown Estate Scotland's material assets. Crown Estate manages the rights to gold and silver across most of Scotland. The Mines Royal covers approximately 6696.43km^2. Crown Estate Scotland also hold the	This action is primarily focused on the improvement of material assets such as renewable energy and existing infrastructure in a sustainable manner. This would have significant positive impacts for the material assets held by Crown Estate Scotland.	0
	Enhance material assets and support the sustainable use and management of existing			++

Action 25: Deliver the Rural Assets Strategy to enhance productivity and sustainability in Scotland's rural economies and communities (including capital raised for re-investment, capital investment programme and improvements to residential properties) **Alternative 2:** Rural Assets Strategy with a stronger environmental focus **Spatial extent and scale of asset affected:** This would take place at a selected number of locations and properties across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill). This action would involve implementing a Rural Assets Strategy with a strong environmental focus to enhance productivity and sustainability in rural economies and communities.				
	material assets.	rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets.		

Action 26 – Alternative 1

Action 26: Support innovation through co-investing with tenants/ partners

Alternative 1: Involvement of communities and partners in identifying potential projects and developing proposals

Spatial extent and scale of asset affected: The focus of this Action would span across Crown Estate Scotland's coastal assets, four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	This Action could lead to activity across an area including a wide range of international, national and local biodiversity designations.	Although the focus of this Action is on encourage sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant are progressed or small scale hydro plants developed. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided. There is also potential for positive effects, for example where projects include tree planting or soil conservation.	-/+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			-/+
Population and Human Health	Avoid adverse effects on health and quality of life.	This Action could affect a wide range of rural and peri-urban communities, together with land managers and other Crown Estate Scotland tenants.	This Action could include projects to help rural communities and businesses adapt to a more sustainable future. Depending on the project in question, there could be potential for adverse impacts associated with construction activity, traffic or perceptions of 'bad neighbour' uses. There could be some minor positive effects on community and individual well-being as a result of involvement in developing proposals.	-/+
	Improve the health and living environment of people and communities.			-/+
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			-/+
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	This Action has potential to affect a range of upland and lowland soil types.	The principal effect of this Action is to support sustainable management of soils. It is also likely to support projects to improve waste management (reducing the risk of soil pollution) and generate soil conditioners as a by-product of waste management. It is possible that other developments brought forward through this Action could have adverse impacts on soil, but these are likely to be local in nature and are not judged to be of significance.	+

Action 26: Support innovation through co-investing with tenants/ partners **Alternative 1:** Involvement of communities and partners in identifying potential projects and developing proposals **Spatial extent and scale of asset affected:** The focus of this Action would span across Crown Estate Scotland's coastal assets, four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.				
	Reduce vacant and derelict land and buildings.		It is possible that this Action include projects which involve the reuse of vacant or derelict land and buildings.	0/+
Water	Protect and enhance the state of the water environment	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK.	This Action will support sustainable resource management which could include projects to improve soil management (e.g. reducing erosion of soils and pollution of watercourse) and waste. These are likely to result in a positive effect on water quality.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.		This Action could also support sustainable flood management project – minor positive effect.	0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality in most rural areas is good, with transport forming the main source of pollutant emissions.	This Action could support sustainable waste management projects (e.g. bio-energy schemes) which reduce sources of air pollution, or tree planting which could filter dust and other air pollutants. These positive effects are likely to be of negligible significance overall. Some developments supported by this Action, specifically those relating to the combustion of biomass or biogas, or those involving the movement of 'waste' materials could result in emissions to air. Provided developments meet current standards, these impacts are unlikely to be of significance.	0/-
	Improve air quality and reduce levels of nuisance associated with poor air quality.			0/-
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland.	Most projects supported by this action are likely to help reduce greenhouse gas emissions, directly or indirectly. Where projects involve transport movements there is potential for additional carbon emissions.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This Action could support a range of projects which directly or indirectly support carbon reduction. This could include small scale renewable energy projects, sustainable soil management and measures to support tree planting. Together these could have a minor, positive effect. Opportunity to encourage communities and partners to engage with climate mitigation issues and local identification of potential projects – minor positive effect.	+

Action 26: Support innovation through co-investing with tenants/ partners

Alternative 1: Involvement of communities and partners in identifying potential projects and developing proposals

Spatial extent and scale of asset affected: The focus of this Action would span across Crown Estate Scotland's coastal assets, four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.

	Support climate change adaptation.		This Action does not have an explicit focus on climate adaptation.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate. Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of	Although the focus of this Action is on encourage sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant are progressed or small scale hydro plants affect historic assets or their settings. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided.	0/-
	Improve the quality of the wider built environment.		Many projects supported by this Action are unlikely to have any implications for the built environment. Where projects include a built component (e.g. associated with waste management or renewable energy generation, there is potential for some adverse impacts on the quality of the built environment, depending on the location and design of the development in question. This is considered to be a minor negative effect overall.	0/-

Action 26: Support innovation through co-investing with tenants/ partners **Alternative 1:** Involvement of communities and partners in identifying potential projects and developing proposals **Spatial extent and scale of asset affected:** The focus of this Action would span across Crown Estate Scotland's coastal assets, four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.				
		the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations.		
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and national parks	Although the focus of this Action is on encourage sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant are progressed or small scale hydro plants developed. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided. There is also potential for positive effects, for example where projects include tree planting.	-/+
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	This Action is unlikely to result in projects that have a significant effect on important geodiversity sites.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	This Action could result in projects which result in the more sustainable use of natural resources, so is likely to have a significant positive impact on material assets.	++
	Enhance material assets and support the sustainable use and management of existing material assets.		By encouraging the re-use of waste, the sustainable use of resources such as soil or supporting the development of renewable energy schemes (e.g. small scale hydro, biomass or biogas) this Action could Enhance material assets and support the sustainable use and management of existing material assets.	+

Action 26 – Alternative 2

Action 26: Support innovation through co-investing with tenants/ partners

Alternative 2: Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners.

Spatial extent and scale of asset affected: The focus of this Action would span across Crown Estate Scotland's coastal assets four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	This Action could lead to activity across an area including a wide range of international, national and local biodiversity designations.	Although the focus of this Action is on encourage sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant are progressed or small scale hydro plants developed. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided. While there is potential for positive effects, for example where projects include tree planting or soil conservation, it may be more difficult to identify these opportunities without the involvement of local partners. Without co-investment it is likely that projects will be fewer in number and / or smaller in scale, so effects (positive and negative) are likely to be correspondingly smaller.	0/-
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			0/-
Population and Human Health	Avoid adverse effects on health and quality of life.	This Action could affect a wide range of rural and peri-urban communities, together with land managers and other Crown Estate Scotland tenants.	This Action could include projects to help rural communities and businesses adapt to a more sustainable future. It may be more difficult to identify and progress these opportunities without the involvement of local partners. Depending on the project in question, there could be potential for adverse impacts associated with construction activity, traffic or perceptions of 'bad neighbour' uses. There could be some minor positive effects on community and individual well-being as a result of involvement in developing proposals. Again, without local involvement, it will more difficult to achieve these benefits. Without co-investment it is likely that projects will be fewer in number and / or smaller in scale, so effects (positive and negative) are likely to be correspondingly smaller	0/-
	Improve the health and living environment of people and communities.			0/-
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			0/-

Action 26: Support innovation through co-investing with tenants/ partners **Alternative 2:** Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners. **Spatial extent and scale of asset affected:** The focus of this Action would span across Crown Estate Scotland's coastal assets four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.				
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	This Action has potential to affect a range of upland and lowland soil types.	The principal effect of this Action is to support sustainable management of soils. It is also likely to support projects to improve waste management (reducing the risk of soil pollution) and generate soil conditioners as a by-product of waste management. Without the involvement of local partners it is likely to be more difficult to identify and progress these kinds of projects. It is possible that other developments brought forward through this Action could have adverse impacts on soil, but these are likely to be local in nature and are not judged to be of significance. Without co-investment it is likely that projects will be fewer in number and / or smaller in scale, so effects (positive and negative) are likely to be correspondingly smaller	0/+
	Reduce vacant and derelict land and buildings.		It is possible that this Action include projects which involve the reuse of vacant or derelict land and buildings. Without co-investment it is likely that projects will be fewer in number and / or smaller in scale, so effects are likely to be correspondingly smaller	0
Water	Protect and enhance the state of the water environment	Rivers, lochs, canals and ponds cover 2% of Scotland's land area which equates to around 70% of the UK's surface water whilst equating to 90% of the volume of freshwater in the UK.	This Action will support sustainable resource management which could include projects to improve soil management (e.g. reducing erosion of soils and pollution of watercourse) and waste. These are likely to result in a positive effect on water quality. This Action could also support sustainable flood management project – minor positive effect. Without the involvement of local partners it is likely to be more difficult to identify and progress these kinds of projects. Without co-investment, they are also likely to smaller and / or fewer in number.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.			0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality in most rural areas is good, with transport forming the main source of pollutant emissions.	This Action could support sustainable waste management projects (e.g. bio-energy schemes) which reduce sources of air pollution, or tree planting which could filter dust and other air pollutants. These positive effects are likely to be of negligible significance overall. Some developments supported by this Action, specifically those relating to	0

Action 26: Support innovation through co-investing with tenants/ partners **Alternative 2:** Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners. **Spatial extent and scale of asset affected:** The focus of this Action would span across Crown Estate Scotland's coastal assets four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.				
	Improve air quality and reduce levels of nuisance associated with poor air quality.		the combustion of biomass or biogas, or those involving the movement of 'waste' materials could result in emissions to air. Provided developments meet current standards, these impacts are unlikely to be of significance. Without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the risks of adverse impacts and the opportunity to secure positive benefits.	0
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Climate change will impact on all areas of Scotland.	Most projects supported by this Action are likely to help reduce greenhouse gas emissions, directly or indirectly. Where projects involve transport movements there is potential for additional carbon emissions. Without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the risks of adverse impacts and the opportunity to secure positive benefits.	0/+
	Support actions which contribute to targets for reducing greenhouse gas emissions.		This Action could support a range of projects which directly or indirectly support carbon reduction. This could include small scale renewable energy projects, sustainable soil management and measures to support tree planting. Together these could have a minor, positive effect. Without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the risks of adverse impacts and the opportunity to secure positive benefits.	0/+
	Support climate change adaptation.		This Action does not have an explicit focus on climate adaptation.	0
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate. Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated	Although the focus of this Action is on encouraging sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant or small scale hydro plants affect historic assets or their settings. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided. Without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the risks of adverse impacts.	-/0

Action 26: Support innovation through co-investing with tenants/ partners

Alternative 2: Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners.

Spatial extent and scale of asset affected: The focus of this Action would span across Crown Estate Scotland's coastal assets four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.

	Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings In total, eight designated wreck sites have been identified around the coast, nine scheduled monuments (including seven wrecks in Scapa Flow), four listed lighthouses and 13 sites designated under the Protection of Military Remains Act 1986. Several battlefields have also been identified in coastal locations. The UNESCO World Heritage Site and the Heart of Neolithic Orkney are also important cultural heritage features of the coastal and marine environment. Numerous conservation areas, listed buildings and scheduled monuments are found in coastal locations.		
	Improve the quality of the wider built environment.		Many projects supported by this Action are unlikely to have any implications for the built environment. Where projects include a built component (e.g. associated with waste management or renewable energy generation, there is potential for some adverse impacts on the quality of the built environment, depending on the location and design of the development in question. This is considered to be a minor negative effect overall. Without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the risks of adverse impacts	0
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Several National Scenic Areas (NSAs) are concentrated along coastal environments, primarily along the north and west coasts with more than half of Scotland's National Scenic Areas containing some form of coastal or marine element. It is unlikely that there would be any interactions between wild land and	Although the focus of this Action is on encourage sustainable resource use, there is potential for minor adverse impacts, for example where developments such as bio-energy plant are progressed or small scale hydro plants developed. Existing safeguards, particularly those relating to designated sites, should ensure such effects are minimised or avoided. There is also potential for positive effects, for example where projects include tree planting.	-/+

Action 26: Support innovation through co-investing with tenants/ partners

Alternative 2: Crown Estate Scotland makes investment decisions without involvement / co-investment with tenants / partners.

Spatial extent and scale of asset affected: The focus of this Action would span across Crown Estate Scotland's coastal assets four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill encompassing an area of 37,000km^2) focusing on agriculture, forestry, recreation and field sports. It could also relate to Mines Royal Options and Leases and wild salmon fishing where the rights reside with Crown Estate Scotland. This Action will invite applications for local innovative projects, focusing on sustainable resource use.

		national parks		
	Protect geological sites of national, regional or local importance.	There is potential for interaction with designated or sensitive areas. There is vast geodiversity in the range of seabed habitats and sediments. This includes coal, evaporite and metallic mineral resources located on or beneath the sea bed.	This Action is unlikely to result in projects that have a significant effect on important geodiversity sites.	0
Material Assets	Avoid adversely impacting on material assets.	Potential for projects to impact on the provision of water supply, energy provision (existing or potential) or other material assets such as minerals.	This Action could result in projects which result in the more sustainable use of natural resources, so is likely to have a positive impact on material assets. However, without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the opportunity to secure positive benefits.	+
	Enhance material assets and support the sustainable use and management of existing material assets.		By encouraging the re-use of waste, the sustainable use of resources such as soil or supporting the development of renewable energy schemes (e.g. small scale hydro, biomass or biogas) this Action could Enhance material assets and support the sustainable use and management of existing material assets. However, without local involvement and co-funding it is likely that schemes will be fewer in number, reducing the opportunity to secure positive benefits.	+

Action 27 – Alternative 1

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.
Alternative 1: Crown Estate Scotland progresses local involvement of communities and local partners in decisions relating to land

Spatial extent and scale of asset affected: This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	This action may highlight sensitive ecological areas. This will not directly result in physical work so impacts are not likely to occur. Opportunities to encourage communities and partners to engage with biodiversity issues and local identification of potential projects could contribute to evidence based plans. Overall, a minor positive effect is identified.	+
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			+
Population and Human Health	Avoid adverse effects on health and quality of life.	An estimated 354,060 people live across the four council areas (Dumfries and Galloway, Moray, Midlothian and the Cairngorms National Park) where the four rural estates are located.	Local involvement in decisions relating to evidence based estate plans could have positive benefits as local residents and communities could have input on projects and future development which may improve quality of life and the living environment. This could also lead to local involvement in the improvement of open spaces. There could be some minor positive effects on community and individual well-being and empowerment as a result of involvement in developing proposals.	++
	Improve the health and living environment of people and communities.			++
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			++
Soil	Protect valuable soil resources, including carbon soils and best	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for	This action will support plans which relate to the future development of land across the four rural estates in partnership with local communities or	0

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 1:** Crown Estate Scotland progresses local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
	and most versatile agricultural land.	agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland.	other partners. The preparation of evidence based plans to informs decisions relating to land across the four rural estates may identify areas of valuable soil resources with community input also forming This would not directly result in the development of land therefore no physical impacts are anticipated.	
	Reduce vacant and derelict land and buildings.		This action would involve the creation of evidence based estate plans which may identify areas of vacant and derelict which could inform decisions made on the development of land. The inclusion of local communities and partners may support the reuse and redevelopment of these areas to the benefit of local communities. However, this action will not directly result in physical work so the effects may not be significant however minor positive effects remain.	0/+
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	The action may identify land which may be vulnerable to adverse effects on water quality and flood risk. The inclusion of local communities and partners could encourage decisions which are designed to reduce flood risk and impacts on water quality. However, this action will not directly result in physical work or construction so the effect is anticipated to not be significant however minor positive effects remain.	0/+
	Avoid and reduce flood risk both presently and taking into account climate change.			0/+
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA.	As this action will not result in any construction or physical works to implement decisions on land use. This action is unlikely to impact upon air quality. Overall, a negligible effect is identified.	0
	Improve air quality and reduce levels of nuisance			0

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 1:** Crown Estate Scotland progresses local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
	associated with poor air quality.			
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	The involvement of local communities and partners in decision relating to land across the four estates could encourage decision which encourages the reduction of greenhouse gases and long term decisions which would support climate change adaption for local communities which could have positive effects. However as this action would only inform decision and would not progress any physical work, the overall effect may not be significant.	0/+
	Support actions which contribute to targets for reducing greenhouse gas emissions.			0/+
	Support climate change adaptation.			0/+
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate. Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings.	Local involvement in decisions relating to evidence based estate plans could have positive benefits as local residents and communities could have input on projects and future development of the land. This opportunity would encourage communities and partners to engage with historic environment and local identification of potential projects. However, this action may not directly result in development that affects the historic environment, thus effects may not be significant.	0/+
	Improve the quality of the wider built		The involvement of local communities and partners would have a positive	+

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 1:** Crown Estate Scotland progresses local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
	environment.		impact on the improvement of the wider built environment. This would encourage engaged investment with any future development to promote and reflect the best interest of communities in terms of the built environment.	
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	Local involvement in decisions relating to evidence based estate plans could have positive benefits as local residents and communities could have input on projects and future development of the land. This action would create the opportunity to encourage communities and partners to engage with landscape, seascape and geodiversity issues and to help identify potential and locally relevant projects. However, this action may not directly result in development that affects landscape and geodiversity, thus effects may not be significant.	0
	Protect geological sites of national, regional or local importance.			0
Material Assets	Avoid adversely impacting on material assets.	Agricultural and forestry operations across the four estates form a considerable part of Crown Estate Scotland's material assets. Crown Estate manages the rights to gold and silver across most of Scotland. The Mines Royal covers approximately 6696.43km^2. Crown Estate Scotland also hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets.	This action would explore opportunities to encourage communities and partners to engage with energy and other material assets which may form as part of the evidence based plans, helping to identify potential and locally relevant projects. This action could also include the involvement of local communities and partners in the enhancement of existing material assets.	+
	Enhance material assets and support the sustainable use and management of existing material assets.			+

Action 27 – Alternative 2

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders.
Alternative 2: Crown Estate Scotland does not progress local involvement of communities and local partners in decisions relating to land

Spatial extent and scale of asset affected: This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.

SEA Topic Area	SEA Objective	Potential interaction with designated or sensitive areas	Description of net effect	Score
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	The River Spey SAC runs through the Glenlivet estate which is an important habitat for several protected species. There are three SSSIs within the boundary of the Glenlivet Estate which include: • Lower Strathavon Woods SSSI • Bochel Wood SSSI • Fodderletter SSSI The Lower River Spey SSSI runs through the Fochabers Estate. This also forms part of the Moray and Nairn Coast Ramsar Site. The Roslin Glen SSSI and Country Park is situated within the Whitehill Estate.	The preparation of the evidence based estate plans may highlight areas of high ecological value. While this action would not directly result in physical works so it is unlikely to If Crown Estate Scotland chooses not to include local communities and partners, there may be missed opportunities to engage with biodiversity and local knowledge of the area would not be reflected.	0
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.			0
Population and Human Health	Avoid adverse effects on health and quality of life.	An estimated 354,060 people live across the four council areas (Dumfries and Galloway, Moray, Midlothian and the Cairngorms National Park) where the four rural estates are located.	This action will aim to establish a decision making process on land throughout the four rural estates by preparing evidence based plans. As a result, this action will not result in physical work so impacts will not occur. However, views held by residents would not be included within the decision making process and opportunities to encourage communities and partners to engage with issues around greenspace and active outdoor recreation would be lost.	0/-
	Improve the health and living environment of people and communities.			0/-
	Retain and improve quality, quantity and connectivity of publicly accessible open space.			0/-
Soil	Protect valuable soil resources, including carbon soils and best	The rural estates of Applegirth, Fochabers and Whitehilll are primarily situated on land capability for	This action primarily relates to the establishment a decision making process on land throughout the four rural estates by preparing evidence	0

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 2:** Crown Estate Scotland does not progress local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
	and most versatile agricultural land.	agriculture (LCA) classes 1-4 which indicate their suitability for arable cropping. Glenlivet estate, located in the Cairngorms National Park, has low agricultural capability and is only suitable for rough grazing and improved grassland. Soils suitable for arable cropping are largely limited to eastern Scotland.	based plans. It is unlikely to involve physical work and would have an overall negligible effect.	
	Reduce vacant and derelict land and buildings.		The chance to encourage communities and partners to help identify potential projects targeting the re-use of buildings or land issues is lost. This may have minor negative effects as the reuse and redevelopment of derelict land may benefit local communities more widely.	0/-
Water	Protect and enhance the state of the water environment	Crown Estate Scotland hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets. Improvements in water quality have been observed in many rivers, canals and estuaries due to decreases in the releases of environmental pollutants. Just under half of Scotland's rivers are now of good or high status.	This action primarily relates to the establishment a decision making process on land throughout the four rural estates by preparing evidence based plans. It is unlikely to involve physical work and would have an overall negligible effect.	0
	Avoid and reduce flood risk both presently and taking into account climate change.		If Crown Estate Scotland progress without the inclusion of local communities and partners, the opportunity to encourage decisions which are designed to reduce flood risk and impacts on water quality would be lost. This may mean that local knowledge and concerns are not accurately reflected throughout the decision making process.	0
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Air quality management areas are typically designated within specific roads which carry heavy traffic in local authority areas, although there are some local authority wide AQMA.	This action primarily relates to the establishment a decision making process on land throughout the four rural estates by preparing evidence based plans. It is unlikely to involve physical work and would have an overall negligible effect.	0
	Improve air quality and reduce levels of nuisance associated with poor air quality.			0

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 2:** Crown Estate Scotland does not progress local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	The effects of climate change will have an impact across all areas of Scotland. The impacts of wetter, milder winters coupled with more frequent heavy rainfall may increase flood risk and soil moisture. Warmer, drier summers may increase the risk of wildfires particularly on heather moorlands which covers a large portion of the Glenlivet Estate and the introduction of new pests and diseases which may affect biodiversity and agriculture.	If Crown Estate Scotland progress without the inclusion of local communities and partners, the opportunity to encourage communities and partners to engage with climate mitigation, including the identification of locally relevant projects, is lost.	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.		If Crown Estate Scotland progress without the inclusion of local communities and partners, the opportunity to encourage and engage with climate mitigation and adaption, including the identification of locally relevant projects, is lost.	0/-
	Support climate change adaptation.			0/-
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	A designated Battlefield (Battle of Glenlivet) is within the boundary of the Glenlivet Estate. Within the Fochabers Estate there are several Category A Listed buildings and the Gordon Castle (Bog of Gight) Historic Garden and Designed Landscape. The Whilehills Estate also contains 2 Grade A listed buildings and is situated close to the Roslin Glen and Hawthornden Castle Garden and Designated Landscape. There are several Scheduled Monuments which fall within the boundary of the Applegirth Estate as well as some Grade A Listed Buildings.	The exclusion of local involvement in decisions relating to evidence based estate plans could have minor negative effects as local residents and communities would not have input on projects and future development of the land. The opportunity to encourage communities and partners to engage with cultural heritage and the historic environment and to help identify potential and locally relevant projects would be lost. Local knowledge of the surrounding land would also not be reflected accurately within the plan. However, this action may not directly result in development that affects the historic environment, thus effects may not be significant.	0/-
	Improve the quality of the wider built environment.			0/-

Action 27: Increase local involvement in decisions relating to land through evidence-based estate plans (for Glenlivet, Fochabers, Whitehill and Applegirth). These will be developed by proactively working with tenants, communities, local councils and development trusts and other key stakeholders. **Alternative 2:** Crown Estate Scotland does not progress local involvement of communities and local partners in decisions relating to land **Spatial extent and scale of asset affected:** This would take place across the four rural estates (Glenlivet, Fochabers, Applegirth and Whitehill) encompassing an area of 37,000km^2.				
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	There are two national parks in Scotland - Loch Lomond and The Trossachs National Park and the Cairngorms National Park which cover a combined 5,665 square kilometres and are also NSA. There are Crown Estate Scotland assets located within both of these designations, specifically the Glenlivet Estate and Mines Royal.	The exclusion of local involvement in decisions relating to evidence based estate plans could have minor negative effects as local residents and communities would not have input on projects and future development of the land. The opportunity to encourage communities and partners to engage with landscape, seascape and geodiversity issues and to help identify potential and locally relevant projects would be lost. Local knowledge of the surrounding land would also not be reflected accurately within the plan. However, this action may not directly result in development that affects the historic environment, thus effects may not be significant.	0/-
	Protect geological sites of national, regional or local importance.			0/-
Material Assets	Avoid adversely impacting on material assets.	Agricultural and forestry operations across the four estates form a considerable part of Crown Estate Scotland's material assets. Crown Estate manages the rights to gold and silver across most of Scotland. The Mines Royal covers approximately 6696.43km^2. Crown Estate Scotland also hold the rights to river salmon fishing with the majority of these assets concentrated in Scotland's Central Belt, specifically the Greater Glasgow and Clyde Valley area with the River Clyde and the River Avon encompasses within these assets.	If Crown Estate Scotland choose not include local communities, the opportunity to engage with the land decision making process would be lost. Views would not be accurately reflected and locally relevant projects would go unidentified. Local communities would lose the chance to engage with material asset issues such as future energy developments. This action would also result in the exclusion of local communities and partners in the enhancement of existing material assets. However, this action may not directly result in development that affect material assets, thus effects may not be significant.	0/-
	Enhance material assets and support the sustainable use and management of existing material assets.			0/-

Summary of Assessment Scores

	Draft Corporate Plan Actions	2	2	2	2	13	13	14	14	14	15	15	19	19	20	20	21	21	23	23	25	25	26	26	27	27
SEA Topic Area	**Reasonable Alternatives**	1	2	3	4	1	2	1	2	3	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance.	-	-?	-?	0/-	-/+	-/+	0/-	-	-/+	0/+	0	+?	-?	+	+?/-?	-/+	0/-/+	++	+	-	++	-/+	0/-	+	0
	Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	0	0	0/-	0/-	-/+	-/+	0	-	-/+	0/+	0	+?	-?	+	+?/-?	-/+	0/-/+	++	+	-	++	-/+	0/-	+	0
Population and Human Health	Avoid adverse effects on health and quality of life	0	0	0/-	0	0/+	0	0/-	-/+	-/+	0/+	0	+?	-?	+	+?/-?	-/+/+	-/+	++	+	+	++	-/+	0/-	++	0/-
	Improve the health and living environment of people and communities.	+	+	+	+	0/+	0	+	-/+	-/+	0/+	0	+?	-?	+	+?/-?	-/+/+	-/+	++	+	+	++	-/+	0/-	++	0/-
	Retain and improve quality, quantity and connectivity of publicly accessible open space.	0	+	0	+	0/+	0	-/+	0	+	0/+	0	+?	-?	+	+?/-?	-/+/+	-/+	++	+	-/+	++	-/+	0/-	++	0/-
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	0	-	0/-	0/-	0	0	0	0	-	0	0	0	-?	0	0/-?	0/-	0/-	++	+	0/-	++	+	0/+	0	0
	Reduce vacant and derelict land and buildings.	0?	0/+	0/+	0/+	+	0	0/+	0	+	0/+	0	0/+?	-?	+	0/+?/-?	0/+	0/+	+	+	0/+	0/+	0/+	0	0/+	0/-
Water	Protect and enhance the quality and quantity of watercourses and waterbodies (surface water and groundwater) including coastal and estuarial waters.	0?	0?	0/-	0/-	0/+	0	0	0	-/+	0/+	0	0	-?	0	0/-?	0/-	0/-	++	+	0	0/+	0/+	0/+	0/+	0
	Avoid and reduce flood risk both presently and taking into account climate change.	0	0?	0/-	0/-	0/+	0	-/+	0	0/+	0/+	0	0/+?	-?	0/+	0/+?/-?	0/-/+	0/-/+	++	+	0	0/+	0/+	0/+	0/+	0
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	0	0/-	0	0	0	0	0/-	0/-	-	0	0	0	0/-?	0/-	0/-?	0/-	0/-	+	+	0	0	0/-	0	0	0
	Improve air quality.	0	0	0	0	0	0	0	0/-	-	0	0	0	0/-?	0/-	0/-?	0/-	0/-	+	+	0	0	0/-	0	0	0
Climatic Factors	Avoid increasing greenhouse gas emissions.	0	-	-	0/-	0	0	0/-	0/-	-/0	0	0	0/+?	0/-?	+	0/+?/-?	-/+	-/+	0	+	0	0/+	0	0/+	0/+	0
	Support actions which contribute to targets for reducing greenhouse gas emissions.	++	0	0	0	0/+	0	0/+	0/+	-/0	0/+	0	0/+?	0/-?	+	0/+?/-?	0/+/++	0/+	++	+	0/+	0/+	+	0/+	0/+	0/-

	Draft Corporate Plan Actions	2	2	2	2	13	13	14	14	14	15	15	19	19	20	20	21	21	23	23	25	25	26	26	27	27
	Support climate change adaptation.	0	0	0	0/+	0/+	0	0/+	0/+	+	0/+	0	0/+?	0/-?	+	0/+?/ -?	0/+	0/+	++	+	+	0/+	0	0	0/+	0/-
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets.	0/-	-	-/+	-/+	0/+	0	0/-	-	-/+	0/+	0	0/+?	0/-?	+	0/+?/ -?	0/-/+	0/-/+	-	-	0	+	0/-	-/0	0/+	0/-
	Improve the quality of the wider built environment.	-/+	+	+	+	0/+	0/+	-/+	0	-/+	0/+	0	0/+?	0/-?	+	0/+?/ -?	0/+	0/+	+	+	+	+	0/-	0	+	0/-
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	0/-	-/+	-	0/-	0/-	0/-	-	0/-/+	-/+	0/+	0	+?	-?	+	+?/-?	0/-	0/+	++/-	+/-	0	0/+	-/+	-/+	0	0/-
	Protect geological sites of national, regional or local importance.	0	0/-	0/-	0/-	0	0	0	0	0	0	0	0	-?	0	0/-?	0/-/+	0/-/+	0/+	0/+	0	0/+	0	0	0	0/-
Material Assets	Avoid adversely impacting on material assets.	0	0	0	0	0/+	0/+	-/+	-/+	0/+	0	0	0	0/-?	0	0/-?	0/-	0/-	++	+	+	0	++	+	+	0/-
	Enhance material assets.	+	0	0	+	0/+	0/+	-/+	-/+	0/+	0/+	0	0	0/-?	0	0/-?	0/+	0/-	++	+	+	++	+	+	+	0/-

Appendix 6

Summary of relevant strategies and regulatory requirements

Table A6. 1 Summary of strategies and regulatory requirements relevant to Actions focused on rural assets

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	Action 19 (Alternative 1 & 2) Action 20 (Alternative 1 & 2) Action 23 (Alternative 1 & 2) Action 25 (Alternative 1 &2) Action 26 (Alternative 1 & 2) Action 27 (Alternative 1 & 2)	Scottish Planning Policy states that any development plan or proposal likely to have a significant effect on designated sites which is not directly connected with or necessary to their conservation management must be subject to an "appropriate assessment" of the implications for the conservation objectives. Such plans or proposals may only be approved if the competent authority is confident that the "appropriate assessment" demonstrates there will be no adverse effect on the integrity of the site. Additionally, infrastructure exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location. Other development will be subject to the statutory planning process.
Water	Protect and enhance the state of the water environment. Avoid and reduce flood risk both presently and taking into account climate change.	Action 19 (Alternative 1 & 2) Action 20 (Alternative 1 & 2) Action 23 (Alternative 1 & 2) Action 25 (Alternative 1 &2) Action 26 (Alternative 1 & 2) Action 27 (Alternative 1 & 2)	The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) sets out graduated levels of authorisation for activities which may pose a risk to surface waters. To allow for proportionate regulation, there are three types of CAR authorisation. Development exceeding a certain scale would also be subject to EIA, which should consider the likely significant effects on the water environment.
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of	Action 19 (Alternative 1 & 2) Action 20 (Alternative 1 & 2) Action 23 (Alternative 1 & 2) Action 25 (Alternative 1 &2) Action 26 (Alternative 1 & 2) Action 27 (Alternative 1 & 2)	Scottish Climate Change Adaption Programme (SCAAP) which states that climate change adaption measures are embedded into Scottish Government policy including the National Planning Framework. The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 Provides main legislation to list buildings of special architectural or historic interest, define requirements in relation to changes affecting listed buildings and conservation areas and sets out a framework for designating and managing Conservation Areas. Historic Environment Scotland Act 2014 builds on legislation ancient monuments and listed buildings legislation and provides for the creation of inventories of gardens and designed landscapes, and battlefields. Development proposals exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications which includes consideration of impacts

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
	historical heritage and cultural value e.g. locally listed buildings. Improve the quality of the wider built environment.		the historic environment. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location. Other development will be subject to the statutory planning process which also takes account of impacts including on the historic environment.

Table A6. 2 Summary of strategies and regulatory requirements relevant to Actions focussed on coastal and marine assets

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
Biodiversity, Fauna and Flora	Protect and enhance terrestrial and aquatic habitats and species of international, national, regional or local importance. Maintain and expand wildlife corridors and minimise fragmentation of ecological areas and green spaces.	Action 2 (Alternatives 1,2,3 & 4) Action 13 (Alternative 1 and 2) Action 14 (Alternative 1,2 & 3) Action 15 (Alternative 1 & 2) Action 21 (Alternative 1 & 2)	Scottish Planning Policy states that any development plan or proposal likely to have a significant effect on Natura 2000 sites which is not directly connected with or necessary to their conservation management must be subject to an "appropriate assessment" of the implications for the conservation objectives. Such plans or proposals may only be approved if the competent authority is confident that the "appropriate assessment" demonstrates there will be no adverse effect on the integrity of the site. Additionally, infrastructure exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications.
Water	Protect and enhance the state of the water environment. Avoid and reduce flood risk both presently and taking into account climate change.	Action 2 (Alternatives 1,2,3 & 4) Action 13 (Alternative 1 and 2) Action 14 (Alternative 1,2 & 3) Action 15 (Alternative 1 & 2) Action 21 (Alternative 1 & 2)	The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) sets out graduated levels of authorisation for activities which may pose a risk to the aquatic environment. To allow for proportionate regulation, there are three types of CAR authorisation. Development exceeding a certain scale would also be subject to EIA, which should consider the likely significant effects on the water environment. Scotland's National Marine Plan also sets out policy and guidance to safeguard water resources.
Cultural Heritage and the Historic Environment	Conserve and, where appropriate, enhance those elements which contribute to the	Action 2 (Alternatives 1,2,3 & 4) Action 13 (Alternative 1 and	Guidance on the protection of the historic marine environment is set out within Scotland's National Marine Plan. The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 Provides main legislation to list buildings of special architectural or historic

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
	significance of terrestrial and marine designated and undesignated heritage assets in a manner appropriate to their significance, including World Heritage Sites, Conservation Areas, Listed Buildings, Historic Marine Protected Areas, archaeological remains, and areas of historical heritage and cultural value e.g. locally listed buildings.	2) Action 14 (Alternative 1,2 & 3) Action 15 (Alternative 1 & 2) Action 21 (Alternative 1 & 2)	interest, define requirements in relation to changes affecting listed buildings and conservation areas and sets out a framework for designating and managing Conservation Areas. Historic Environment Scotland Act 2014 builds on legislation ancient monuments and listed buildings legislation and provides for the creation of inventories of gardens and designed landscapes, and battlefields. Development proposals exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications which includes consideration of impacts the historic environment. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location. Other development will be subject to the statutory planning process which also takes account of impacts including on the historic environment
	Improve the quality of the wider built environment.		Creating Places, the Scottish Government policy statement on Architecture and place for Scotland, describes the six qualities of positive placemaking as: Distinctive, Safe and Pleasant, Easy to move around and beyond, Welcoming, Adaptable, Resource Efficient.

Table A6. 3 Summary of strategies and regulatory requirements relevant to Actions across rural, coastal and marine assets

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
Population and Human Health	Avoid adverse effects on health and quality of life	Relevant to all actions.	Infrastructure exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications. Under the 2017 EIA Regulations, an EIA carried out for development requires consideration of Population and Human Health. The impacts on human health can be included in topic chapters such as noise, air quality and traffic and transport. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location. Other development will be subject to the statutory planning process which also takes account of impacts on human health such as traffic, noise and air.
	Improve the health and living environment of people and communities.		
	Retain and improve quality, quantity and connectivity of publicly accessible open space.		

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
Soil	Protect valuable soil resources, including carbon soils and best and most versatile agricultural land.	Relevant to all actions.	There are several pieces of existing legislation which, often indirectly, protect some aspects of soil functions but there is currently no overarching legislation which provides protection for all soils from all threats. Some soils may also form designated sites (SSSI, Natura 2000 etc.). Although soil itself is often not directly protected under such designations, management agreements and operations often offer soil protection in order to protect and enhance the biodiversity, geodiversity and landform value of the sites. Development on designated or sensitive sites may require some form of environmental assessment to establish the associated impacts of any proposed development.
	Reduce vacant and derelict land and buildings.		SPP states that Local Development Plans (LDP) should allocate a range of sites for business through business land audits. Business land audits carried out by local authorities should monitor any significant land use issues (e.g. underused, vacant, and derelict) of sites within the existing business land supply. However, planning policy and guidance on vacant and derelict land may vary between local authorities.
Air	Minimise air pollution, particularly where air quality is a known issue through the designation of an AQMA.	Relevant to all actions.	Section 83(1) of the Environment Act 1995 states that Local Authorities have a duty to designate relevant areas where air quality objectives are not (or are unlikely to be) being met as Air Quality Management Areas (AQMAs). Following the declaration of an AQMA, the local authority is required to develop and implement a plan (Air Quality Action Plan) to improve air quality in that area.
	Improve air quality and reduce levels of nuisance associated with poor air quality.		Infrastructure exceeding a certain threshold stipulated in Schedule 1 of the 2017 EIA Regulations will require the preparation of an EIA Report which must consider the significant environmental effects associated with any proposed development to accompany planning applications. This may consider impacts upon air quality.
Climatic Factors	Avoid increasing greenhouse gas emissions including those from land use and land use change including agriculture and forestry.	Relevant to all actions.	The Climate Change (Scotland) Act 2009 sets out targets to reduce Scotland's emission of greenhouse gases by at least 42% by 2020 and 80% by 2050.
	Support actions which contribute to targets for reducing greenhouse gas emissions.		The Scottish Government have established a nationwide policy which aims to provide 50% of Scotland's overall energy consumption from renewable sources by 2030 and are currently working towards complete decarbonisation (100% renewable) by 2050.
	Support climate change		Scottish Climate Change Adaption Programme (SCAAP) which states that climate

SEA Topic Area	SEA Objective	Relevant Action	Other strategies and regulatory requirements (as relevant to this SEA topic)
	adaptation.		change adaption measures are embedded into Scottish Government policy including the National Planning Framework
Landscape and Geodiversity	Protect and enhance landscape and seascape character and quality including National Scenic Areas, national parks, geoparks, wild land, open spaces, parks and gardens and their settings.	Relevant to all actions.	Scottish Planning Policy states that proposed development within National Scenic Areas (NSA) must demonstrate that the objectives of the designation and the overall integrity of the NSA will not be compromised or that any significant adverse effects on its special qualities are outweighed by social, environmental or economic benefits of national importance in accordance with Scottish Planning Policy. Development proposals exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications which includes consideration of landscape and visual impacts. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location. Other development will be subject to the statutory planning process which also takes account of landscape and visual impacts.
	Protect geological sites of national, regional or local importance.		Nationally important geodiversity sites are subject to designation as Sites of Special Scientific Interest. Local authorities may designate locally significant geodiversity sites.
Material Assets	Avoid adversely impacting on material assets.	Relevant to all actions.	Development proposals exceeding thresholds set out in Schedule 1 of the EIA Regulations will require the preparation of an Environmental Impact Assessment (EIA) to accompany planning applications which includes consideration of effects on material assets. Developments listed in Schedule 2 may require EIA depending on scale and the sensitivity of the location.
	Enhance material assets and support the sustainable use and management of existing material assets.		