

Marine Scotland

A Marine Litter Strategy for Scotland



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FOREWORD



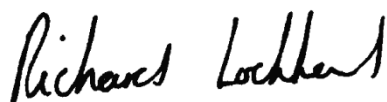
Marine litter is a threat to our precious marine environment that needs to be addressed to ensure that future generations can continue to enjoy our environment and use our seas sustainably. I believe Scotland is well placed to rise to this challenge.

Our coast is a major environmental and economic asset and one which I am committed to protect. The Scottish marine litter strategy is a co-ordinated response to address the impacts of litter in Scotland's seas. It aims to reduce the levels of litter entering the sea, in co-operation with the national litter strategy – [Towards a litter-free Scotland](#), and brings together measures for education and awareness raising; supporting economic growth; monitoring the scale of the problem; and influencing actions more widely at the UK, EU and international scale.

Central to this strategy is the need for a co-ordinated approach to tackle this problem together, through partnership working, to ensure that the amount of marine and coastal litter is minimised to bring ecological, economic and social benefits.

This strategy will deliver a framework for the control and management of marine and coastal litter, and our collaborations with other countries in the North East Atlantic, through the OSPAR Convention and our obligations under the Marine Strategy Framework Directive to achieve Good Environmental Status in our marine waters by 2020.

I am committed to the successful implementation of this strategy, building on the national litter strategy, and working with partners to review progress and make amendments to the approach as required. Most importantly, it will also require everyone to share, and contribute to, the strategy's vision to ensure our seas can be enjoyed by all and used sustainably.

A handwritten signature in black ink that reads "Richard Lochhead". The signature is written in a cursive, slightly slanted style.

Richard Lochhead
Cabinet Secretary for Rural Affairs, Food and the Environment

EXECUTIVE SUMMARY

The marine litter strategy has a clear purpose: to develop current and future measures to ensure that the amount of litter entering the marine and coastal environment is minimised to bring ecological, economic and social benefits.

The aim of the strategy is to help realise the vision of “clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long term needs of people and nature”. This underpins developments in marine legislation through the Marine (Scotland) Act 2010 in promoting sustainable use of our valuable and unique environment.

The development and implementation of the strategy will be led by Marine Scotland, in taking the strategy forward. It is recognised that responsibility for delivery is shared across local and national government, business, environmental and community groups, and private individuals.

The strategy builds on work and initiatives already underway, involving individuals, organisations, groups and communities in caring for their marine and coastal environment. Bringing it together to add clear leadership, greater coordination of efforts and fresh momentum.

Shaped by research and public consultation, the marine litter strategy seeks to maximise opportunities and minimise threats in addressing the levels of litter present, and recognises that the Marine Strategy Framework Directive is a key driver.

With these key issues paramount, the marine litter strategy sets out five strategic directions and a range of measures to help deliver the strategy:

Strategic Direction 1 – Improve public and business attitudes and behaviours around marine and coastal litter, in co-ordination with the national litter strategy.

Action will include:

Reviewing and working with stakeholders to identify action to address gaps in education and awareness raising.

Focus on how design can reduce litter from products that frequently appear in the marine and coastal environment.

Strategic Direction 2 – Reduce marine and coastal based sources of litter, in co-ordination with land sourced litter being reduced by the national litter strategy.

Action will include:

Co-operation and co-ordination of activity with partners to address marine litter at source.

Strategic Direction 3 – Contribute to a low carbon economy by treating ‘waste as a resource’ and seizing the economic and environmental opportunities associated with the Zero Waste Plan.

Action will include:

Explore, with partners, how to recycle more material from marine litter.

Strategic Direction 4 – Improve monitoring at a Scottish scale and develop measures for strategy evaluation.

Action will include:

Efforts to improve monitoring of the scale of the marine litter problem and impact of the strategy on outcomes.

Strategic Direction 5 – Maintain and strengthen stakeholder co-ordination at the UK, EU and international scales.

Action will include:

Efforts to engage with, and share best practice with UK, EU and international audiences.

Some of the commitments outlined in the marine litter strategy will take early effect, others will take longer to bring about, but all will contribute to the outcomes we want for Scotland. We will measure our progress throughout, adjusting our actions wherever necessary so that we can be confident we are making a positive difference through the strategy.

1. INTRODUCTION

Definition of marine litter

1.1 Marine litter is any persistent, manufactured or processed solid material discarded, disposed of, or abandoned in the marine and coastal environment. Marine litter consists of items that have been made or used by people and deliberately discarded or unintentionally lost into the sea or coastline including such materials transported into the marine environment from land by rivers, drainage or sewerage systems or wind. Typical examples are plastics, wood, metals, glass, rubber, clothing and paper. This definition does not include semi-solid remains of for example mineral and vegetable oils, paraffin and chemicals that sometime litter sea and shores¹.

Background

1.2 Marine litter poses a number of problems across the economy, environment and society. These detrimental effects include damage to marine wildlife as well as wider ecosystem deterioration, public health issues and impacts on aesthetics and a wider range of economic impacts across industries reliant on our coastal and marine environment.

1.3 Marine litter threatens the realisation of a shared vision for 'clean, healthy, safe, productive, biologically diverse marine and coastal environments, managed to meet the long term needs of nature and people' and may also impact upon Scotland's Strategic Objectives, most notably the drive to become a Greener, Wealthier & Fairer, Safer & Stronger and Healthier Scotland. It is essential that Scotland's marine and coastal resource is protected from the damage caused by marine litter.

1.4 A draft marine litter strategy was published for consultation from 3 July to 27 September 2013. Ninety-eight responses were received and a number of amendments have been incorporated into the final strategy.

1.5 The strategy sets out Scotland's approach to ensuring that the amount of litter entering the marine environment is minimised to bring ecological, economic and social benefits.

Current activity

1.6 A range of legislation and regulatory tools exist to inform and implement a Scottish marine litter strategy from the international, European and national scales. These include, but are not limited to the:

- International Convention for the Prevention of Pollution from Ships²;
- European Marine Strategy Framework Directive³;

¹ Marine Strategy Framework Directive – Task Group 10 Report Marine Litter

²[http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](http://www.imo.org/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

- European Directive on Port Reception Facilities for Ship-generated Waste and Cargo Residues⁴;
- Bathing Waters(Scotland) Regulations 2008⁵;
- EU Water Framework Directive⁶
- Environmental Protection Act (1990)⁷;
- Merchant Shipping (Port Waste Reception Facilities) Regulations 2003⁸;
- Marine (Scotland) Act 2010⁹. The management of litter, while not directly specified under the Act, falls under the scope of marine planning;
- International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V (Garbage), 1 January 2013¹⁰;
- Waste (Scotland) Regulations 2012¹¹;
- European Strategy on plastic waste which encourages Member States to take legislative or non-legislative measures in order to strengthen re-use and the prevention, recycling and other recovery operations of waste¹²;
- Urban Wastewater Treatment Directive¹³.

1.7 The purpose of the Scottish Government’s national litter strategy ‘Towards a Litter-Free Scotland’ is to influence individuals’ behaviours through information, infrastructure and enforcement, with a focus on prevention. It has strong links with the marine litter strategy – where marine litter is washed up on shore, or where land-based litter is washed out to sea.

Marine Strategy Framework Directive

1.8 The Marine Strategy Framework Directive (MSFD) is a key driver for addressing the problem of marine and coastal litter. The Directive requires Member States to prepare national strategies to manage their seas to achieve Good Environmental Status (GES)¹⁴ by 2020. Major emphasis is placed on international cooperation.

Key requirements of the Marine Strategy Framework Directive:

- An assessment of the current state of UK seas.
- A detailed description of what GES means for UK waters, with a set of associated targets and indicators.

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:164:0019:0040:EN:PDF>

⁴ http://europa.eu/legislation_summaries/environment/waste_management/l24199_en.htm

⁵ <http://www.legislation.gov.uk/ssi/2008/170/contents/made>

⁶ <http://ec.europa.eu/environment/water/water-framework/>

⁷ <http://www.legislation.gov.uk/ukpga/1990/43/contents>

⁸ <http://www.legislation.gov.uk/uksi/2003/1809/contents/made>

⁹ http://www.legislation.gov.uk/asp/2010/5/pdfs/asp_20100005_en.pdf

¹⁰ <http://www.imo.org/OurWork/Environment/PollutionPrevention/Garbage/Pages/Default.aspx>

¹¹ <http://www.legislation.gov.uk/ssi/2012/148/contents/made>

¹² http://ec.europa.eu/environment/waste/plastic_waste.htm

¹³ http://ec.europa.eu/environment/water/water-urbanwaste/index_en.html

¹⁴ http://ec.europa.eu/environment/marine/good-environmental-status/index_en.htm

The two elements (above) form the UK Marine Strategy Part One¹⁵.

- Establishment of a monitoring programme to measure progress toward Good Environmental Status by July 2014.
- Establishment of a programme of measures for achieving Good Environmental Status by 2016.

1.9 The Directive defines GES in terms of 11 descriptors. Descriptor 10 requires litter to be at levels where the “properties and quantities of marine litter do not cause harm to the coastal and marine environments”.

1.10 The UK Government’s response to the MSFD consultation (the initial assessment and determination of the characteristics of GES, 2012), published in December 2012¹⁶, sets out implementation of the initial stages of the Directive. The MSFD target for marine litter on coastlines is for an “Overall reduction in the number of visible litter items within specific categories/types on coastlines from 2010 levels by 2020”. This objective recognises the limitations in data currently available to support a target for a specific percentage reduction in coastal litter and, based on current expert advice, has been included in the UK’s set of GES targets.

1.11 The second stage of the MSFD, to be completed by July 2014, is for Member States to put in place monitoring programmes to measure progress towards achieving and maintaining GES. The final stage is the implementation of management measures to achieve GES by 2020.

Table 1: UK Marine Strategy Part 1 targets and indicators for Descriptor 10¹⁷

GES characteristics for marine litter	
Characteristics of GES for Descriptor 10 (marine litter)	<p>The draft UK characteristics of GES for the Descriptor are as follows:</p> <p>The amount of litter, and its degradation products, on coastlines and in the marine environment is reducing over time and levels do not pose a significant risk to the coastal and marine environment, either as a result of direct mortality such as through entanglement, or by way of indirect impacts such as reduced fecundity or bioaccumulation of contaminants within food chains.</p>

¹⁵Marine Strategy Part One – <http://www.defra.gov.uk/publications/2012/12/20/pb13860-msfd-strategy-part-one/>

¹⁶ <http://www.defra.gov.uk/consult/2012/03/27/marine-strategy-framework-1203/>

¹⁷ <http://www.defra.gov.uk/publications/files/pb13860-marine-strategy-part1-20121220.pdf>

GES targets for marine litter	
<p>Targets and indicators for Descriptor 10 – Characteristics of Litter in the Marine Environment</p>	<p>Overall reduction in the number of visible litter items within specific categories/types on coastlines.</p> <p>MSFD Indicator: Trends in the amount of litter washed ashore and/or deposited on coastlines, including analysis of its composition, spatial distribution and, where possible, source. Surveillance indicator to monitor the quantities of litter on the seafloor.</p> <p>MSFD Indicator: Trends in the amount of litter in the water column (including floating at surface) and deposited on the sea floor, including analysis of its composition, spatial distribution and, where possible, source. Surveillance indicator to monitor the amounts of plastic found in the contents of fulmars stomachs as a method of determining litter floating at the surface (in line with the OSPAR¹⁸ Ecological Quality Objective).</p> <p>MSFD Indicator: Trends in the amount of litter in the water column (including floating at surface) and deposited on the sea floor, including analysis of its composition, spatial distribution and, where possible, source.</p>

¹⁸ Oslo & Paris OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic

2. OVERVIEW OF THE STRATEGY

Aim and Objectives

2.1 The aim of the strategy is to contribute to the achievement of Marine Scotland's vision for a clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long term needs of people and nature. This vision includes managing our seas sustainably to protect their rich biological diversity and to ensure that it is an ecosystem that continues to provide economic, social and wider benefits for people, industry and users of the marine environment.

2.2 The strategy builds on the huge amount of work already underway at national and local level, bringing it together to add greater coordination of efforts.

Vision

2.3 The vision for the strategy is to identify achievable actions focussed on tackling marine litter at source, in parallel with actions to be targeted by the national litter strategy; to continue to support and raise awareness of removal of marine litter; and contribute to the overall aim of achieving GES as required by the MSFD.

2.4 Our vision for 2020 is: A Scotland where marine and coastal litter is significantly reduced by 2020. The integrity and function of marine and coastal ecosystems are not compromised by litter and there is no significant risk to wildlife, communities and human health. This is achieved within a zero waste Scotland where people and businesses act responsibly, and reduce, reuse, recycle and recover waste resources.

Strategic Directions

2.5 The vision links to five strategic directions and associated actions. The strategic directions are:

- **Strategic Direction 1 – Improve public and business attitudes and behaviours around marine and coastal litter, in co-ordination with the national litter strategy.**
- **Strategic Direction 2 – Reduce marine and coastal based sources of litter, in co-ordination with land sourced litter being reduced by the national litter strategy.**
- **Strategic Direction 3 – Contribute to a low carbon economy by treating 'waste as a resource' and seizing the economic and environmental opportunities associated with the Zero Waste Plan.**
- **Strategic Direction 4 – Improve monitoring at a Scottish scale and develop measures for strategy evaluation.**
- **Strategic Direction 5 – Maintain and strengthen stakeholder co-ordination at the UK, EU and international scales.**

High level actions are detailed within the strategic directions at part 3.

Options for delivery

2.6 The approach for delivery of the strategy is based around a networked approach with central lead body to co-ordinate the initiative and drive actions forward.

Strategy implementation and review

2.7 Responsibility for implementing the measures contained within the strategy is shared between a community of interests which includes Marine Scotland, local authorities, the wider public sector, business, environmental and community groups, and private individuals. It is anticipated that the strategy will benefit all users of the marine environment and coastal communities.

2.8 As the strategy will form part of the implementation of the MSFD, it is proposed that the strategy timeframe should be closely aligned with that of MSFD. The strategy will require regular review, in partnership with stakeholders. A review is proposed for 2015-2016 to coincide with work on the development of the programme of measures, and a further review in 2018.

2.9 A review of the strategy's effectiveness will be undertaken through to 2020, with the achievement of GES, and further measures will be considered at this stage. We will develop a monitoring framework for the strategy to evaluate success in terms of the impact on changing behaviours and awareness raising.

3. STRATEGIC DIRECTIONS AND ACTIONS

3.1 This section outlines the five objectives for the strategy, which incorporates activity and actions that already exist or are underway within the marine and, where appropriate, the terrestrial context.

STRATEGIC DIRECTION 1:

Improve public and business attitudes and behaviours around marine and coastal litter, in co-ordination with the national litter strategy

3.2 Research suggests that nearly 80% of marine litter originates from a terrestrial source. Meeting the challenge of addressing marine litter levels will depend on everyone playing their part by recognising and taking responsibility for their own actions.

3.3 There are currently a range of initiatives aimed at reducing marine litter, raising awareness of the problem, or changing behaviour.

Action has to date included:

The Scottish Government, with Zero Waste Scotland, has:

- Developed a communications toolkit for delivery partners and a behaviour change marketing campaign to discourage littering.
- Commissioned a drinks container deposit-return scheme feasibility study.
- Started work to better understand links between enforcement delivery and the legal system.
- Supported the Transport Litter Group's Litter Week of Action to cut litter on the transport network.
- Taken forward legislation to:
 - Increase the fixed penalties for litter and flytipping, from £50 each, to £80 and £200 respectively.
 - Create powers for Loch Lomond and the Trossachs National Park, and other public bodies, to issue fixed penalties.
 - Create a requirement for alleged offenders to provide their name and address to enforcement officers.
 - Clarify local authorities' powers regarding the placement and retrieval of bins, in order to reduce accidental litter.
 - Discourage large-scale flytipping, with new powers for SEPA and action to recover landfill tax from illegally deposited wastes by Revenue Scotland and SEPA.
 - Introduce a charging scheme for single-use carrier bags – a highly visible form of litter – from October 2014.

3.4 Action under Strategic Direction 1 will complement current activity with a focus on marine and coastal activities.

New actions:

- Review possible gaps in education and awareness raising.
- Work with stakeholders to identify action to address gaps.
- Education and awareness raising focussed on:
 - Prevalent items of litter found on beaches.
 - Impacts of litter on marine life, including plastics.
 - Promote the KIMO Fishing for Litter¹⁹ project, amongst ports not currently members of the scheme, and align with OSPAR recommendation to promote establishment of the scheme.
 - Impacts of incorrect disposal of non-biodegradable waste on the water and waste network.
- Encourage producers to change design of products present in the marine environment including alternatives to plastic in cotton bud sticks and plastic micro beads in personal care products.

STRATEGIC DIRECTION 2:

Reduce marine and coastal based sources of litter, in co-ordination with land sourced litter being reduced by the national litter strategy

3.5 Marine litter stems from two sources: land based sources and sea based sources and there needs to be an integrated approach to address marine litter and stop it at source.

Action has to date included:

- Ship waste management plans and inspections of Garbage Record Books under the Merchant Shipping (Prevention of Pollution by Garbage and Sewage) Regulations 2008.
- Zero Waste Scotland research project into the feasibility of recycling and reuse facilities for marine litter and fishing nets at ports.
- System to report vessels illegally dumping waste at sea.

New actions:

- Work with the Maritime and Coastguard Agency and Transport Scotland to investigate the potential for better enforcement of regulation of waste.
- Extend existing Port Waste Reception Facilities to include fishing vessels.
- 'No-special-fee' reception facilities for vessels and compulsory discharging of waste in port for all vessels including fishing boats.
- Research into recycling and reuse facilities for fishing nets at ports.
- Investigate incorporation of environmental responsibilities into the education and training of ship owners, ship operators, crews, port users, fishermen and recreational boat users.

¹⁹ <http://www.kimointernational.org/Scotland.aspx>

- Plastics industry code of conduct for the safe handling, packaging and transportation, by sea of plastic pellets.
- Give statutory underpinning to marine litter strategy through the policies in the national marine plan.
- Incorporate marine litter reduction into regional marine plans under the Marine (Scotland) Act 2010.
- Where there is evidence of a specific environmental impact and source of Sewage Related Debris, work with Scottish Water and the Scottish Environment Protection Agency to establish the most cost effective solution and how it might be prioritised within future work programmes.
- Co-ordination with Zero Waste Scotland activity.
- Continue and expand support for coastal clean-up and survey activity by volunteers supported by Non-Governmental Organisations such as the Marine Conservation Society and Keep Scotland Beautiful.
- Expand KIMO Fishing for Litter initiative to contribute to a reduction in marine litter.
- Implement the OSPAR recommendation to promote the establishment of KIMO Fishing for Litter initiatives in fishing harbours and facilitate:
 - The raising of awareness of the social, economic and ecological impacts of marine litter among fishermen and within the fishing industry;
 - A change in waste management practices within the fishing industry;
 - The direct removal of marine litter from the marine environment in the course of normal fishing activity.
- Keep under review the potential to enhance and add to existing actions.

STRATEGIC DIRECTION 3:

Contribute to a low carbon economy by treating ‘waste as a resource’ and seizing the economic and environmental opportunities associated with the Zero Waste Plan

3.6 The national litter strategy sets out how Scotland can benefit from the economic value of materials which are currently littered. The marine litter strategy aligns with this move towards resource and waste efficiency and recovery.

Action has to date included:

- Engage with the Low Carbon Economic Strategy for Scotland (March 2011) in particular building opportunities for resource efficiency (energy, water, waste materials) and sustainable business practices across the economy.

New actions:

- Encourage marine planning partnerships to treat waste as a resource in regional marine plans.
- Work with Zero Waste Scotland to develop guidance on potential for recycling of collected marine and coastal litter.

- Consider options for the provision of port and harbour reception facilities to drive separate collection.
- Consider findings from Zero Waste Scotland project and develop options for delivering an economically viable long term scheme to establish free fishing net disposal at a network of fishing ports across Scotland, to include the infrastructure to recover and recycle the nets and other plastics recovered from fishing operations.
- Consider additional opportunities to incentivise recycling of marine and coastal litter.
- Seek investment for more environmental and clean technologies that facilitate recovery, recycling and environmental monitoring in coastal and maritime industries.

STRATEGIC DIRECTION 4:

Improve monitoring at a Scottish scale and develop measures for strategy evaluation

3.7 It is widely recognised that the current evidence base for the levels of marine and coastal litter is limited, and the strategy seeks to build on existing data capture and management measures so that we can help deliver appropriate and reliable data. This could help provide information on the types, quantities and distribution of marine litter, to provide an insight into the associated problems and threats and to increase public awareness of the condition of the coastline.

3.8 The Marine Strategy Framework Directive is being implemented in a co-ordinated way across the UK Administrations. The second stage of the Directive sets out proposals for UK monitoring programmes to monitor progress towards GES which will be reflected in the strategy. In addition, data collected for MSFD purposes will facilitate reporting on whether the marine litter strategy's aims and objectives are being met.

Action has to date included:

- Voluntary action through beach litter surveys using best practice techniques.
- Recording of litter retrieved on Marine Scotland science vessels, and appropriate disposal.
- Research into monitoring programme for microscopic plastic particles.

New actions:

- Review appropriate actions in light of agreed monitoring framework for MSFD.
- Engage with other countries in the further development of indicators for MSFD.
- Work with the Local Authorities, Scottish Environment Protection Agency, Scottish Natural Heritage, Scottish Water, Non-Governmental Organisations and others to develop monitoring measures.
- Develop a monitoring framework for the strategy to evaluate success and identify future priorities.

- Alignment of Non-Governmental organisations, Scottish, UK and international monitoring programmes and data with UK Marine Monitoring and Assessment Strategy; International Council for the Exploration of the Sea and OSPAR – recognising differences may be needed/accepted.
- Further develop agreed baseline for coastal, seabed and water column litter, which can be used for Marine Strategy Framework Directive reporting, including where necessary the expansion of existing activity by Marine Conservation Society, Keep Scotland Beautiful and others, as well as developing and standardising methodology in co-ordination with national and EU partners.
- Prioritise an initial evaluation on the current state of research to give a scientific and technical basis for monitoring, knowledge gaps and priority areas for research.
- Undertake research to address key gaps in knowledge, including microplastics in the marine and coastal environment.
- Support Non-Governmental organisations in engaging and sharing knowledge with the plastics industry.
- Continue to use Marine Scotland research vessels to undertake seabed monitoring of marine litter during scientific trawls, and consider additional monitoring opportunities in other marine activities.

STRATEGIC DIRECTION 5:

Maintain and strengthen stakeholder co-ordination at the UK, EU and international scales

3.9 Marine litter is a problem that cuts across a variety of scales and requires action from the international to local level. The strategy aims to influence actions within its direct sphere of control and more broadly at the UK, EU and international levels.

Action has to date included:

- Continue to participate in development of UK proposals for MSFD monitoring and implementation of measures and wider co-ordination with other countries.
- Continue to participate actively in OSPAR's work on prevention and management of marine litter and work with signatory countries to ensure the statutory enforcement of waste reduction measures under OSPAR and MARPOL.

New actions:

- National steering group on marine litter, led by Marine Scotland, to co-ordinate approach and share best practice amongst Scottish Government Directorates, agencies and Non-Governmental Organisations and others, including information and resource sharing and prioritising actions for the strategy
- Marine Scotland to more actively engage with, and share best practice with other competent authorities on a regular basis across Scottish/UK/EU/ international level.

- Contribute to OSPAR work to develop a Regional Action Plan on Marine Litter.
- Ensure that regional marine plans contribute to reduction of marine litter.
- Ensure Scotland is a positive, reliable and ambitious partner on action to reduce marine litter.

4. DELIVERY MECHANISM

4.1 The development and implementation of the strategy will be led by the Scottish Government with Marine Scotland as the central lead body, in taking the strategy forward.

4.2 Marine Scotland will co-ordinate the existing network of sectors and stakeholders at the local and national level, and establish a national stakeholder group to share and prioritise good practice on developing the strategy and monitoring outputs.

4.3 The focus will be on delivering the key elements of the strategy within staff and financial resources that are available from individual sectors, which shall be kept under review.

- Central co-ordination from Marine Scotland, in the context of wider initiatives and international engagement;
- Initiatives that have a direct impact on reducing litter from source;
- Implementation plan, including objectives and performance measures;
- Monitoring plan both for levels of debris in the environment, and the strategy;
- Regular review of resources;
- Utilisation and promotion of work carried out by existing networks and stakeholders;
- Networked, regional approach in parallel to regional marine plans to develop and prioritise actions.

Scottish Marine Litter Strategy
Strategic Environmental Assessment
Post Adoption SEA Statement

1. BACKGROUND

1.1 Introduction

- 1.1.1 The Environmental Assessment (Scotland) 2005 Act (hereafter referred to as the 2005 Act) requires public bodies in Scotland to carry out a Strategic Environmental Assessment (SEA) on their plans, programmes and strategies. SEA examines plans, programmes or strategies as they are developed, to identify any significant effects they may have on the environment. It ensures that environmental considerations are taken into account and, where required, proposes mitigation measures to avoid or minimise any potentially significant adverse effects on the environment. Where possible, opportunities to enhance environmental performance are identified.
- 1.1.2 Marine Scotland undertook a public consultation on a draft Scottish marine litter strategy from July to September 2013. The SEA Environmental Report that documented the potential significant effects of the marine litter strategy was made available for consultation alongside the draft programme of improvements. This SEA was taken forward by the Scottish Government's Environmental Assessment Team on behalf of Marine Scotland.
- 1.1.3 As required under the 2005 Act, this post adoption statement forms the final output from the SEA process. It outlines how the findings of the SEA and the views of consultees have been taken into account in the development of the marine litter strategy.

1.2 Structure of this Statement

- 1.2.1 Section 18(3) of the 2005 Act sets out the information that should be included in this post adoption SEA Statement. In summary, it should include:
- How the environmental considerations raised in the SEA have been integrated into the plan, programme or strategy;
 - How the Environmental Report has been taken into account;
 - How the opinions of consultees have been taken into account;
 - The reasons for choosing the plan, programme or strategy as adopted, in light of the other reasonable alternatives considered; and
 - Measures to be taken to monitor the significant environmental effects of the implementation of the plan, programme or strategy.

1.3 Scottish Marine Litter Strategy

- 1.3.1 During Parliament's consideration of the Marine (Scotland) Act a commitment was given to develop a marine litter strategy. A strategy provides an opportunity to build on current initiatives, and make the overall effort a more coherent package, and meet international commitments under the Marine Strategy Framework Directive (MSFD) which requires Member States to achieve Good Environmental Status in their marine waters by 2020.
- 1.3.2 On 3 July 2013, Marine Scotland launched a public consultation on proposals for inclusion within a draft Scottish marine litter strategy. The proposals presented in the draft strategy covered three main areas:
- Vision;
 - Five strategic directions in the areas of education, reducing inputs, seizing opportunities and economic growth, monitoring and engagement; and
 - Options for delivery of the marine litter policies.
- 1.3.3 In parallel, a consultation on a national litter strategy was launched on provisions to manage litter in Scotland's terrestrial environment.

2. ENVIRONMENTAL CONSIDERATIONS

2.1 Key findings of the Environmental Report

2.1.1 An Environmental Report was produced presenting the findings of the SEA undertaken on the draft strategy. Overall the SEA found that the marine litter strategy, together with the national litter strategy would be likely to have a positive effect for the environment in the long term in reducing litter and fly-tipped material, and a long term cumulative benefit for Scottish waters (and those of other North Atlantic states). The SEA also found that the efforts of the strategies to reduce and clear existing litter will also have long term benefits in terms of biodiversity, water quality, and improvements in amenity.

2.1.2 The possible effects on population and human health identified as a result of the proposals have been defined as a reduction in the risk of disease related to the incidence of bacterial contamination of water and reductions in litter sinks.

2.1.3 Existing litter in the seas still presents a risk but continuing the Fishing for Litter project will assist in reducing the amount of litter in the marine environment in the long term. This should be considered in more detail as the strategy develops, along with appropriate monitoring to evaluate the effectiveness of such measures.

2.2 Consultation on the draft Scottish Marine Litter Strategy and Environmental report

2.2.1 The SEA Environmental Report on both the draft marine and national litter strategies, together with parallel consultations, were issued for public consultation in July 2013. There were 98 written responses to the consultation on the draft marine litter strategy. The respondents represented a wide range of stakeholders including public bodies, businesses and their industry representatives, environmental non-government organisations and private individuals. These responses have provided a range and depth of views on the draft marine litter strategy which have helped to shape the development of the final strategy. A report presenting an analysis of responses to the consultation on a Draft Scottish Marine Litter Strategy is available at : <http://www.scotland.gov.uk/Resource/0044/00446215.pdf>

2.2.2 Four responses were received to this statutory consultation on the Environmental Report, which comprised the three SEA Consultation Authorities (Scottish Environment Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Historic Scotland) and a public body, Scottish Water. The following section summarises the key issues discussed in these responses.

2.2.3 There was general agreement with the approach taken in the SEA and with the baseline and assessment conclusions. However, SEPA, SNH and Scottish Water provided detail on relevant areas.

2.2.4 SEPA were of the view that monitoring mechanisms outlined in the marine litter strategy should be focussed on implementation rather than the problem itself. SEPA noted that existing monitoring actions should be strengthened to provide the baseline data required for MSFD. SEPA also identified a need for more research and monitoring, with a particular focus on microplastics. Their response also highlighted a need for co-ordination of effort with national and EU partners to develop and standardise methodology for monitoring. Additionally, a request to consider more use of monitoring opportunities in co-ordination with existing activities, such as fishing vessels and ferries.

Scottish Government response:

The strategy outlines action to:

- Determine a baseline for coastal litter, seabed and water column, which can be used for Marine Strategy Framework Directive reporting purposes;
- Prioritise an initial evaluation on the current state of research;
- Undertake research to address key gaps in knowledge, including microplastics in the marine environment;
- Develop and standardise methodology in co-ordination with national and EU partners; and
- Consider better use of Marine Scotland research vessels to undertake seabed monitoring of marine litter during scientific trawls, and consider additional monitoring opportunities in other marine activities.

2.2.5 SNH commented on the importance of the marine and national litter strategies being aligned, with similar objectives.

Scottish Government response:

- This strategy complements the national litter strategy, and while the two strategies have distinct outcomes, both have a focus on the prevention of litter. The alignment of the two strategies is demonstrated through the SEA process and the preparation of a joint SEA Environmental Report addressing both strategies.

2.2.6 Scottish Water highlighted that litter disposal into its systems should be controlled as a source point.

Scottish Government response:

The strategy outlines action to:

- Work with Scottish Water on the scope to reduce Sewage Related Debris.
- Address impacts of incorrect disposal of non-biodegradable waste on the water and waste network through education and awareness raising.

2.2.7 The RSPB recommended that the diagram in the SEA (page 4), outlining the policy context for the strategies, should include the Water Framework Directive.

Scottish Government response:

- This comment is noted for inclusion in any future iteration of the marine litter strategy and accompanying SEA.

Scottish Marine Litter Strategy
Final Business and Regulatory Impact Assessment

Final Business and Regulatory Impact Assessment (BRIA)

Title of Proposal Scottish Marine Litter Strategy
Purpose and intended effect <ul style="list-style-type: none">● Background<p>Marine litter is a global problem which can be a threat to ecosystems, has a socio-economic cost (impacting on tourism and inward investment) and it can also pose a threat to human health and marine wildlife. During the Scottish Parliament's consideration of the Marine (Scotland) Act a commitment was given to develop a Marine Litter Strategy.</p>● Objective<p>The Marine Litter Strategy seeks to build on the strengths of existing measures, identify proposals that will help overcome weaknesses, and maximise opportunities and minimise threats to addressing the levels of litter present in the coastal and marine environment.</p>● Rationale for Government intervention<p>A research report commissioned by the Scottish Government found that the approximate economic cost of the marine litter problem in Scotland is £16.8 million per annum²⁰. The Marine Litter Strategy provides an opportunity to build on current initiatives to reduce marine litter and consider additional work at the national level to enhance and take forward the overall aims of the EU Marine Strategy Framework Directive.</p><p>Tackling marine litter supports our National Performance Framework objective of valuing and enjoying our built and natural environment and protecting it and enhancing it for future generations.</p>
Consultation <ul style="list-style-type: none">● Within Government<p>Discussions have taken place with Marine Scotland Analytical Unit, Scottish Government Zero Waste Team, Scottish Government Planning and Architecture Division, and the Scottish Environment Protection Agency, as part of the development of the Marine Litter Strategy.</p>● Public and Business Consultation<p>As part of a 4-month consultation on a draft Marine Litter Strategy. Informal discussions have been held with a variety of organisations that have a policy interest in marine litter. A BRIA was produced to support the consultation which provided a further opportunity for individuals and businesses to express their views.</p>

²⁰ Potts T, Hastings E (2012) Marine Litter Issues, Impacts and Actions, <http://www.scotland.gov.uk/Publications/2012/09/6461/0>

It should be noted that Scotland's Marine Litter Strategy will not of itself introduce any new regulatory burdens. The Scottish Government will consult widely on any future regulations considered under the Strategy with full Business Regulatory Impact Assessments produced as required.

Options

Option A: Do Nothing – Business as usual

This option assumes that existing work by Government continues but is not supplemented by further work.

Key existing areas of work include:

EU Marine Strategy Framework Directive. This Directive requires Member States to achieve good environmental status (GES) in their marine waters by 2020. The Directive prescribes the key steps which Member States must take to achieve GES:

- The establishment and implementation of a monitoring programme for on-going assessment by July 2014; and
- The development of a programme of measures by 2015, which must be implemented by the end of 2016.

The Directive defines GES in terms of 11 descriptors. Descriptor 10 requires litter to be at levels where the “properties and quantities of marine litter do not cause harm to the coastal and marine environment”. This will require a better understanding of the environmental impacts of marine litter, and if necessary, action will be taken to reduce the amount of litter in the marine environment.

The outcome of a joint consultation on the Marine Strategy Framework Directive, in 2012, proposed that the target for marine litter on coastlines should be an “Overall reduction in the number of visible litter items within specific categories/types on coastlines from 2010 levels by 2020”.

Scotland's Zero Waste Plan, June 2010. This sets out the Scottish Government's vision for a zero waste society where all waste is seen as a resource; waste is minimised; valuable resources are not disposed of in landfills, and most waste is sorted, leaving only limited amounts to be treated. To achieve this vision the Plan sets out radical new measures, including:

- Development of a Waste Prevention Programme for all wastes, ensuring the prevention and reuse of waste is central to all our actions and policies.
- Landfill bans for specific waste types therefore reducing our greenhouse gas emissions and capturing the value from these resources.
- Separate collections of specific waste types, including food, to avoid contaminating other materials, increasing reuse and recycling opportunities and contributing to our renewable energy targets.
- Two new targets that will apply to all waste: 70 per cent target recycled, and maximum 5 per cent sent to landfill, both by 2025.

- Restrictions on the input to all energy from waste facilities, in the past only applicable to municipal waste, therefore encouraging greater waste prevention, reuse and recycling.
- Encouraging local authorities and the resource management sector to establish good practice commitments and work together to create consistent waste management services, benefitting businesses and the public.
- Improved information on different waste sources, types and management highlighting further economic and environmental opportunities.
- Measure the carbon impacts of waste to prioritise the recycling of resources which offer the greatest environmental and climate change outcomes.

Option B: Adopt Marine Litter Strategy

Take more radical steps to reduce marine litter by adopting the Marine Litter Strategy in addition to the key existing areas of work in option A. The Marine Litter Strategy outlines five Strategic Directions and possible areas for action. Some of the actions identified would need further consultation, with appropriate Impact Assessments. The table below outlines some of the actions identified in the Strategy; whether further consultation would take place before implementation; and whether there is an impact on or cost to business.

Table 1: Business impacts of Marine Litter Strategy actions and delivery mechanism

Proposed action	Further consultation?	Impact on/cost to business?
Education and awareness raising.	No.	No direct impact.
Encourage producers to change design of products present in the marine environment including alternatives to plastic in cotton bud sticks and plastic micro beads in personal care products.	Yes.	Depends on whether any further action is taken and what the nature of any action is.
Expand Fishing for Litter initiative to contribute to a reduction in marine litter.	No.	No direct impact.
Incorporate marine litter reduction into regional marine plans under the Marine (Scotland) Act 2010.	Yes.	Possibly, depending on waste prevention actions added.
Seek investment for more environmental and clean technologies that facilitate recovery, recycling and environmental monitoring in coastal and maritime industries.	Yes.	Potentially implications for businesses, depending on nature of any further action.
Alignment of Non-Governmental Organisations,	No.	No direct impact.

Scottish, UK and international monitoring programmes and data.			
Determine a baseline for coastal litter, seabed and water column which can be used for Marine Strategy Framework Directive reporting purposes.	No.	No direct impact.	
Prioritise an initial evaluation on the current state of research to give a scientific and technical basis for monitoring, knowledge gaps and priority areas for research.	No.	No direct impact.	
Develop/test standardised monitoring approaches to allow comparisons at the National and EU scales.	No.	No direct impact.	
Continue to use Marine Scotland research vessels to undertake seabed monitoring of marine litter during scientific trawls, and consider additional monitoring opportunities in other marine activities.	No.	No direct impact.	
The approach for delivery of the Strategy is based around a medium cost, networked approach with central lead body, Marine Scotland to drive actions forward.	No.	Potential financial implications for third sector organisations, without additional resources being made available, in this approach to delivery of the Strategy.	
<p>• Costs and Benefits</p> <p><u>Sectors and groups affected</u></p> <ul style="list-style-type: none"> • Users of the marine environment and coastal communities. • Marine fisheries and coastal aquaculture. • Shipping and offshore industries. • Local authorities. • Householders. • Scottish Environment Protection Agency. • Scottish Water. 			

Benefits

Option A – Do Nothing – Business as usual

Achievement of Good Environmental Status under Descriptor 10 of EU Marine Strategy Framework Directive.

Option B – Adopt Marine Litter Strategy

Potential benefits from Scotland's Marine Litter Strategy include:

- Complements action under Scotland's National Litter Strategy.
- Contributes to international action through the EU Marine Strategy Framework Directive.
- Co-ordination of initiatives aimed at reducing marine litter.
- Increased environmental awareness generally, amongst business and householders.
- Opportunity to address data capture at Scottish scale.
- Positive effect on national and local economies, including improvements to the tourism industry and marine recreation, the sea fishing sector, and a decrease in litter clean-up costs.

The Strategic Environmental Assessment report, and Post Adoption Statement, which were produced to support consultation on the Marine Litter Strategy, outline the impact on the environment of the Marine Litter Strategy.

Costs

Option A – Do Nothing – Business as usual

- The Marine Strategy Framework Directive (MSFD) requires Member States to develop marine strategies with the aim of achieving GES in European marine waters. Additional costs will be dependent on the programme of measures that is yet to be finalised. The attached report sets out an initial economic assessment of the potential measures necessary to achieve GES under the MSFD:
http://randd.defra.gov.uk/Document.aspx?Document=9890_FinalReportME5405.pdf
- Scotland's Zero Waste Plan, published in 2010, set the strategic direction for waste policy for Scotland. Further information can be found in the attached report 'Economic Assessment of the Zero Waste Plan for Scotland' is available at:
<http://www.zerowastescotland.org.uk/ZWPcostbenefit>

Option B – Adopt Marine Litter Strategy

As indicated in Table 1, a number of the actions outlined in the Marine Litter Strategy would have little or no impact on business. Costs will be determined and set out in Business and Regulatory Impact Assessments prepared as part of any future consultation exercise.

- **Scottish Firms Impact Test**

Any changes to be adopted under the Marine Litter Strategy will be fully consulted on and will take account of any costs to Scottish Firms.

- **Competition Assessment**

There is no direct impact on competition arising from the Strategy at this stage.

Will the proposal directly limit the number or range of suppliers?

No.

Will the proposal indirectly limit the number or range of suppliers?

No.

Will the proposal limit the ability of suppliers to compete?

No.

Will the proposal reduce suppliers' incentives to compete vigorously?

No.

- **Test run of business forms**

No new forms are proposed at this stage.

Legal Aid Impact Test

We have liaised with the Scottish Government Civil Law and Legal System Division and it is agreed that the proposals will not have a significant impact on the legal aid fund.

Enforcement, sanctions and monitoring

There are no direct sanctions arising from the Marine Litter Strategy.

As outlined in the Marine Litter Strategy, as the Strategy will form part of the implementation of the Marine Strategy Framework Directive, it is proposed that the Strategy timeframe should be closely aligned with that of the Marine Strategy Framework.

Implementation and delivery plan

It is proposed that the initial period for the Marine Litter Strategy would be to 2020 with the achievement of Good Environmental Status under the Marine Strategy Framework Directive. A review of its effectiveness should be completed and further measures considered at this stage.

Post-implementation review

A review is proposed for 2015-2016 to coincide with work on the development of a programme of measures, with a further review to follow in 2018. The vision for the strategy (and any revisions to the Strategy) could extend beyond 2020 with any further measures considered at this stage. Progress will be measured throughout, and action adjusted where necessary

Summary and recommendation

Option A (existing work)

- Work highlighted under option A will continue.

Option B

- Scottish Government is committed to developing a Marine Litter Strategy. The Strategy sets out a number of actions that the Scottish Government, and others could take to address the levels of marine and coastal litter in Scotland. The benefits and costs will be updated as policies are further developed, and an economic analysis will be completed as part of the final Business and Regulatory Impact Assessment.

It is the recommendation of the Scottish Government that existing work as set out under Option A should continue with additional measures, as informed by responses to the consultation, considered under Option B.

Table 2: Benefits and costs of each option considered

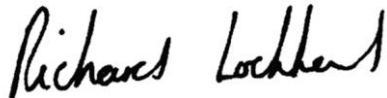
Option	Benefits	Costs
A (existing work)	Achievement of Good Environmental Status under Descriptor 10 of EU Marine Strategy Framework Directive.	Costs dependent on MSFD programme of measures which is still to be finalised. (Many of cost estimates currently based on scenarios rather than informed estimates).
B (Other measures as set out in Marine Litter Strategy)	Benefits arising will principally be reduced costs to the economy and society. Specific benefits will be considered and set out in any Business	Costs will be determined and set out in Business Regulatory Impact Assessment prepared as part of any future consultation exercise for individual actions.

	Regulatory Impact Assessment developed as part of future statutory consultation exercises for individual actions.		
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Declaration and publication

I have read the impact assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options. I am satisfied that business impact will be assessed with the support of businesses in Scotland.

Signed:



Richard Lochhead MSP

Date:

18/08/2014

Scottish Government Contact point:

Nikki Milne, Marine Scotland (nikki.milne@scotland.gsi.gov.uk)



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The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

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