

# Northern Ireland Marine Litter Strategy



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## Foreword



Marine litter is a growing global problem which poses an increasing threat to human health and safety, ecosystem services and sustainable livelihoods. I believe it is a problem which we must address now to ensure that future generations can continue to use our seas sustainably.

The levels of litter present on our coast are unacceptable and the costs of marine litter are particularly high for some sectors; especially for the tourism and recreation sector, and also for fishing. As an island economy, our coast is a major environmental and economic asset and one which I am committed to protect.

The Marine Litter Strategy is a co-ordinated response to addressing the problem of marine litter in Northern Ireland. It aims to reduce the levels of litter entering the sea and remove litter which is already there.

We will need to change our behaviour towards littering, so the Strategy brings together measures for education, effective enforcement, the provision of robust coastal infrastructure and the collection of reliable data.

I believe we must tackle this problem together, through partnership working. Central and local government, the business community, the voluntary and community sector, and individuals must all work together to address the scourge of marine litter.

I am also conscious of our obligations under the Marine Strategy Framework Directive to achieve good environmental status in our marine waters by 2020 and the requirement that "the properties and quantities of marine litter do not cause harm to the coastal and marine environments". The roll out of the Strategy will help Northern Ireland met this and other international commitments.

I am happy to publish the Northern Ireland Marine Litter Strategy and I am convinced it will make an important contribution to ensuring our magnificent coastline can be enjoyed by all and used sustainably.

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Alex Atwood MLA Minister of the Environment

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#### Introduction

- 1.1 Marine litter is a global environmental problem which poses a threat to ecosystems in terms of direct damage to wildlife through entanglement, entrapment and ingestion. According to a 2012 report by the Convention for Biological Diversity<sup>1</sup> impacts of marine debris have been reported for 663 species. Over half of these reports documented entanglement in and ingestion of marine debris. This represents a 40% increase since the last review in 1997, which reported 247 species (Laist, 1997). Entanglement in and ingestion of marine debris can be fatal but can also have a range of sub-lethal consequences.
- 1.2 Seals and dolphins are among the fifty-two species of marine mammals which are known to have become entangled in or ingested marine litter. Seabirds are frequent victims, and an estimated 1 million are killed each year through entanglement or ingestion. Marine litter can also destroy coastal habitats, interfere with biological production and destroy or smother the seabed<sup>2</sup>.



- Secretariat of the Convention on Biological Diversity and the Scientific and Technical Advisory Panel—GEF (2012). Impacts of Marine Debris on Biodiversity: Current Status and Potential Solutions, Montreal, Technical Series No. 67, 61 pages.
- 2 http://www.epa.gov/owow/oceans/debris/toolkit/files/ trash\_that\_kills508.pdf

- 1.3 Marine litter has socio-economic impacts, which include costs to local communities in terms of cleanup expenses, while the presence of medical and sanitary waste and broken glass constitute a potential risk to human health. Cleaning beaches and waterways can be expensive; while there are no figures available for the cost of removing litter from the marine environment. the cost of street cleansing in Northern Ireland now stands at nearly £40million per annum; an increase of nearly 14% on 2010 levels.
- 1.4 Marine litter also results in lost revenues for the fishing industry due to the time and effort involved in removing debris from nets, contaminated catch damage and the repair of nets due to debris. Research suggests<sup>3</sup> that marine litter costs each vessel in the Scottish fleet between £15,000 and £17,000 a year.

#### Background

- 1.6 Northern Ireland's coast is a major environmental and economic asset. It provides an important social and cultural function, sustains coastal communities and industries and is home to a number of productive and biologically diverse ecosystems. It is therefore essential that this important coastal resource is protected from the damage caused by marine litter.
- 1.7 The risks to public health and the environment, and the socio-economic costs of marine litter, combined

<sup>3</sup> The KIMO report on the Economic Impacts of Marine Litter (Mouat, Lopes Lozano and Bateson, 2010) cited in Fishing for Litter Final Report 2008-2011 http://www. kimointernational.org/WebData/Files/FFL%20Scotland/ A4\_3fold\_leaflet\_Final.pdf

with European commitments, are all compelling arguments for the introduction of a Northern Ireland Marine Litter Strategy (the Strategy).

- 1.8 The Strategy is the product of an extensive process of stakeholder engagement. This comprised group discussions at a series of Good Beach Summits during 2011 and 2012 and one-to-one meetings with stakeholders<sup>4</sup>. Discussions centred on measures currently undertaken by the various sectors to ameliorate the problem and measures stakeholders would like included within a Strategy. audit of existing measures An was also undertaken through a stakeholder survey.
- 1.9 A Draft Strategy was published which was the subject of public consultation from 28 September to 21 December 2012. Twenty five responses were received and a number of amendments have been incorporated into the final Strategy as a result.

### **Definition of marine litter**

1.10 Marine litter consists of items arising from human activity, deliberately discarded or unintentionally lost, which end up in the sea and on beaches and coastlines. It is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the

4 An updates paper detailing stakeholder meetings to December 2011 is available from http://www.doeni.gov.uk/ summary\_paper\_for\_beach\_summit\_iii.pdf marine and coastal environment.<sup>5</sup> Typical examples are plastics, wood, metals, glass, rubber, fishing gear, clothing and paper. Semi-solid remains of various oils and other chemicals sometimes occur in the sea and onshore but these are not defined as litter.<sup>6</sup>

#### **International Context**

- 1.11 There are a number of international, European and national measures in place which are aimed at reducing the levels of marine litter and beach safety. These include, but are not limited to:
  - the International Convention on the Prevention of Pollution from Ships (as modified by the 1996 London Protocol) (the MARPOL Convention)<sup>7</sup>;
  - the Port Reception Facilities Directive, which requires the provision of reception facilitates for ship generated waste and cargo residues, and has resulted in tighter controls for ships in ports and at sea<sup>8</sup>;
  - the Waste Framework Directive<sup>9</sup> and the Landfill Directive<sup>10</sup>;
  - the Marine Strategy Framework Directive (MSFD)<sup>11</sup>; and
- 5 Marine Strategy Framework Directive : Task Group 10 Report Marine Litter
- 6 Northern Ireland State of the Seas Report-http://www. doeni.gov.uk/niea/water-home/state\_of\_the\_seas\_ni\_ report.htm
- 7 http://www.imo.org/About/Conventions/ListOfConventions/ Pages/Convention-on-the-Prevention-of-Marine-Pollution-by-Dumping-of-Wastes-and-Other-Matter.aspx
- 8 http://europa.eu/legislation\_summaries/environment/ waste\_management/I24199\_en.htm
- 9 http://eur-lex.europa.eu/LexUriServ/LexUriServ. do?uri=CELEX:32008L0098:EN:NOT
- 10 http://eur-lex.europa.eu/LexUriServ/LexUriServ. do?uri=CELEX:31999L0031:EN:NOT
- 11 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L :2008:164:0019:0040:EN:PDF

• the 2006 Bathing Water Directive<sup>12</sup>

Synergies between marine litter and waste management

- 1.12 The relationship between litter and waste is a complex one. Waste includes all items that people no longer have any use for, which they either intend to get rid of or have already discarded<sup>13</sup> while litter can be defined as misplaced solid waste<sup>14</sup>.
- 1.13 At а European level waste management policy is governed by the Waste Framework and Landfill Directives. The Waste Framework Directive introduces statutory targets linked to the preparation for reuse, recycling and other material recovery and the Landfill Directive aims to prevent or reduce as far as possible the negative effects on the environment from the land filling of waste. It contains targets for the reduction of biodegradable municipal waste going to landfills.
- 1.14 The Northern Ireland Waste Management Strategy 2006-2020 "Towards Resource Management" sets the current policy framework for the management of waste within Northern Ireland. The Strategy reflects the move away from simply managing the waste we produce in a more environmentally friendly manner to preventing waste and managing resources. The strategy is being revised to ensure full compliance with all relevant EU Environmental Directives, coupled with a continuation and development of policies in support of resource efficiency. The 'recast' strategy will

12 http://eur-lex.europa.eu/LexUriServ/LexUriServ. do?uri=CELEX:32006L0007:EN:NOT

14 http://ohiodnr.com/Home/ToolsandResources/LitterFacts/ tabid/18281/Default.aspx be based firmly on the principle of adherence to the waste hierarchy while retaining the core principles contained in the 2006 strategy.

- 1.15 A number of measures contained within the revised Waste Management Strategy could help contribute to addressing levels of litter in the marine environment. These include:
  - the Rethink Waste campaign which combines an advertising campaign, sponsorship of events and educational tools such as sponsorship of the Ecoschools Programme. Increasing environmental awareness, and awareness of appropriate waste disposal techniques among the general public should help change attitudes towards dropping of litter.
  - the development of Waste Prevention Programmes to promote and support waste prevention initiatives such as Ecodesign which aims to reduce the quantities and types of materials in products;
  - the redesign of packaging so that more closed loop recycling can take place;
  - an increase in the use of recyclable materials and the recycled content of packaging;
  - a reduction of unnecessary packaging;
  - a reduction in the loss of virgin plastic pellets to the environment; and
  - the Carrier Bag Levy, which should help to avoid the premature discarding of plastic bags.

<sup>13</sup> http://scp.eionet.europa.eu/themes/waste/

#### **Marine Strategy Framework Directive**

- 1.16 MSFD 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. These include:-
  - an initial assessment of the environmental status of marine waters and a determination of the characteristics of GES by 2012;
  - the establishment and implementation of a monitoring programme for ongoing assessment by July 2014; and
  - the development of a programme of measures by 2015, which must be implemented by the end of 2016.
- 1.17 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".
- 1.18 The Directive was transposed by the UK-wide Marine Strategy Regulations 2010. Implementation in Northern Ireland is being led by DOE Marine Division. Other public bodies within Northern Ireland, such as councils, must have regard to any marine strategy developed for MSFD implementation when exercising their functions.
- 1.19 A joint consultation between Defra, the Northern Ireland Executive, the Scottish Government and the Welsh Government on the proposed implementation of the initial stages of MSFD (the initial assessment,

determination of the characteristics of GES, and GES targets and indicators) closed on 18 June 2012. The Marine Strategy Part 1: UK Initial Assessment and Good Environmental Status<sup>15</sup> was subsequently published on 20 December 2012 and sets out implementation of initial stages of the Directive.

- 1.20 The MSFD target for marine litter on coastlines for "an overall reduction in the number of visible litter items within specific categories/types on coastlines" has been agreed as the overall objective of the Strategy.
- 1.21 This objective is well-aligned with that put forward by other Member States, both in terms of ambition and being qualitative in nature, and recognises the limitations in data currently available.

<sup>15</sup> https://www.gov.uk/government/publications/marinestrategy-part-one-uk-initial-assessment-and-goodenvironmental-status

# PART 2 — Overview of the Strategy

## **Aim and Objective**

- 2.1 The aim of the Strategy is to help realise the vision of "clean, healthy, safe, productive and biologically diverse oceans and seas". This underpins developments in marine legislation such as the Marine and Coastal Access Act 2009; the Marine Policy Statement, which was adopted in 2011; and the Northern Ireland Marine Bill, which was introduced in 2012.
- 2.2 The MSFD target for coastal litter for "an overall reduction in the number of visible litter items within specific categories/types on coastlines" is the objective for the Strategy.
- 2.3 The Strategy will be updated to take account of any amendments made to this target as a result of discussions at an EU level. In addition, data collected for MSFD purposes will facilitate reporting on whether the Marine Litter Strategy's objectives are being met.

### **Strategic Goals**

2.4 The Strategy has two strategic goals. Achieving these will help deliver the objective of an overall reduction in the number of visible litter items within specific categories on coastlines. The strategic goals are:



- Strategic goal 1 reducing the levels of litter entering the marine environment; and
- Strategic goal 2 the removal of litter which is currently present on the coast.
- 2.5 Separate sub-strategies or strands have been developed to achieve strategic goal 1. These include:
  - effecting attitudinal and behavioural change towards the appropriate disposal of through learning litter and communication. Appropriate disposal of litter will reduce the quantities of airborne and riverine litter entering the marine environment as well as reducing the volume of litter dropped directly on the coast or washed ashore from commercial, tourist, angling or fishing vessels;
  - effective enforcement of statutory deterrents. Proactive enforcement of statutory deterrents sends a clear message that those breaking the law will be sanctioned. Statutory deterrents can be used as a tool to effect a change in public opinion and behaviour, and to underpin behavioural change brought about through the implementation of the learning and communication strand;
  - provision of accurate and reliable information on the levels and composition of coastal litter to measure progress in implementing both the Marine Litter Strategy and achieving the requirements of MSFD; and
  - provision of a robust coastal infrastructure in terms of waste water treatment and

## PART 2 — Overview of the Strategy

litter receptacles. Visible and effective coastal infrastructure is needed to receive litter and process sewage waste and also to reinforce behavioural change brought about from education and the effective enforcement of statutory deterrents.

2.6 Details on how these strategic goals will be realised are provided below. Greater details of the strands and associated action plans which list existing and additional measures are contained at Part 3.

### Scope

2.7 A percentage of marine litter is located on the sea bed which is inaccessible without specialist equipment, and within the water column. As litter present in the water column tends to be deposited on the coast, the Strategy will initially look at coastal litter. The scope of the Strategy will however be reviewed in 2015, and consideration will be given to measures to deal with wider marine litter issues, including seabed litter, for inclusion within the **MSFD** Programme of Measures.

### **Strategy period**

- 2.8 Strategy development is a continuous process and the Strategy should be considered as a living document which requires regular review to ensure that the objectives are being met. The Strategy will be revised to ensure that it remains relevant.
- 2.9 As the Strategy will form part of the implementation of the MSFD, its timeframe is closely aligned with that of implementing MSFD, with a review scheduled for 2015 to coincide with the work on the development of

the programme of measures, and a further review in 2018.

2.10 The Strategy will conclude in 2020 with the achievement of GES. A review of its effectiveness will then be undertaken and further measures considered at this stage.

## **Implementation of the Strategy**

2.11 Responsibility for implementing the Strategy is shared between a community of interests which includes DOE. councils. Northern Ireland Water, voluntary and community sector groups, schools and private individuals. As a significant number of stakeholders are represented at the Good Beach Summit, progress updates on implementing the measures contained within the Action Plans will be delivered by DOE at future meetings of the Summit and, where appropriate, to members of the Northern Ireland Environmental Quality Forum or to similar fora.

## **SUMMARY OF PROPOSALS**

# Strategic Goal 1: Reducing Litter Entering the Marine Environment

### **Learning and Communication**

2.12 The Strategy recognises that the challenge of addressing marine litter levels will require a change in public attitudes and behaviour towards the appropriate disposal of litter. The Strategy seeks to educate current and future generations in the actions required to safeguard the environment by building on existing measures such as the Ecoschools programme and council-facilitated beach cleans, which encourage children and young people to connect with their environment.

## PART 2 — Overview of the Strategy

2.13 A number of initiatives such as the Northern Ireland Water "Bag it and Bin it" and the Northern Ireland Tourist Board sponsored "Leave No Trace" campaigns are making an important contribution to changing public attitudes towards dropping litter. Public attitudes to litter are closely intertwined with the concept of civic pride. The DOE is supportive of this principle, which underpins work being undertaken to provide information highlighting the benefits to individuals, communities, and businesses of keeping their communities and shared spaces tidy and litter free.

#### **Statutory Deterrents**

2.14 Enforcement of existing legislation reinforces and builds on the message that it is not acceptable to degrade environmental quality by dropping litter. Effective enforcement is necessary to ensure compliance with the law and the protection of the coastal and marine environment. Offenders need to realise the consequences of littering and polluting Northern Ireland's coast, and a consistent and robust approach to enforcement throughout Northern Ireland is proposed.

#### Data

2.15 The Strategy recognises that the current evidence base for the levels of marine and coastal litter is limited, with the result that linkages between the properties of litter and the quality of the marine environment are unclear. The Strategy seeks to build on existing data capture and management measures so that we can help deliver appropriate and reliable data. This will inform policy development and help monitor progress towards achieving the objectives of both the Strategy and MSFD.

#### Infrastructure

2.16 This strand examines the

infrastructure necessary to address the problem of marine and coastal litter. It focuses on capital investment by Northern Ireland Water in sewerage infrastructure and outfalls, and examines the provision of litter bins on the coast and beach signage.

# Strategic Goal 2: The Removal of Litter from the Marine Environment

2.17 The Strategy recognises that litter is removed from the coastal environment through a combination of council cleansing programmes and activity by the voluntary and community sector, and builds on these existing measures. The opportunity also exists to engage with communities through out this sector and provide awareness of the environmental damage caused by marine litter to volunteers participating in beach cleans. The provision of support to help individuals or groups to actively clean up and maintain their shared spaces will play an important role in achieving to objectives of this strand of the Strategy. This page is intentionally blank

# PART 3 — Policies and Actions

## STRATEGIC GOAL 1: REDUCING THE LEVELS OF LITTER ENTERING THE MARINE ENVIRONMENT

# Strand 1 – Learning and Communication

### **Changing our Behaviour**

- 3.1 Research suggests that nearly 80% of marine litter originates from a terrestrial source. The types of marine litter from land-based sources include litter dropped by the public (plastic bags, food wrappers, cigarettes, plastic containers, cans etc), Sewage Related Debris (SRD) (domestic waste carried by run-off from heavy rains, which can include a number of inappropriately disposed of items, most noticeably cotton buds, wipes and other sanitary products), industrial and municipal waste and fish processing waste.
- 3.2 Meeting the challenge of addressing marine litter levels will require a change in public attitude and behaviour in relation to the appropriate disposal of litter.
- 3.3 The combination of learning and communication, coupled with effective enforcement, provided for in this Strategy will help to achieve and reinforce the behavioural patterns necessary to reduce the visible levels of marine litter in specific categories/ types on our coastline.

#### Aim

3.4 To raise awareness that litter has undesirable environmental, economic and social consequences, in order to achieve a behavioural change in relation to the appropriate disposal of litter.



- 3.5 To achieve this aim, this strand contains two separate sub-strands:
  - (1) education of future generations; and
  - (2) education of the general public in appropriate litter disposal.

## **Objectives**

- To educate current and future generations in the actions required to safeguard the environment, through the appropriate disposal of litter.
- To increase public awareness of the range of punitive measures available to punish those guilty of litter offences, which is addressed through the enforcement strand of the strategy.
- To engage with Government Departments and Agencies, district councils, businesses and the voluntary and community sector to enhance participation in litter prevention by all stakeholders.
- To promote the Strategy through access to information and educational resources.

### **Education Programmes**

- 3.6 The Strategy recognises that a coordinated approach to raising awareness of the impacts litter can have on the coastal and marine environments is key to achieving a cultural and behavioural shift towards the appropriate disposal of litter.
- 3.7 This will involve coordinated and targeted action by schools, DOE, Northern Ireland Water, councils and the voluntary and community sector.
- 3.8 The litter module of a number of existing programmes which raise environmental awareness among children, such as Eco-schools and Young Reporters on the Environment (YRE), encompasses a focus on the damage caused by litter<sup>16</sup> in the marine and coastal environment including: the impacts on birds and other wildlife, and how behavioural change can contribute to solving the problem.
- 3.9 Existing structures will be used to deliver strand 1, including partnerships with education bodies, district councils and Tidy NI, the charity responsible for delivering both the Eco-schools and YRE programmes.
- 3.10 The structure of the education system in Northern Ireland allows for teacher flexibility on how environmental issues are taught up to key stage 3. Beyond this the curriculum is set by the examination boards. Ongoing liaison between DOE and the Council for the Curriculum Examinations and Assessment (CCEA) (Northern Ireland's leading examination body),

through the Education for Sustainable Development Forum (ESDF), will help ensure the topic of marine litter is included within the curriculum where appropriate.

3.11 Third-level education is streamlined particular specialisms with into environmental awareness being taught only on specific environmental courses. Relationships can and have been developed between DOE, councils and universities to ensure that courses reflect current policies. Further opportunities for developing and building on existing relationships will be identified and explored through ESDF.

## **Public Awareness**

- 3.12 A communications programme will be required to bring about the behavioural changes needed to reduce current levels of littering. Respect for the environment underpins the behaviours associated with the appropriate disposal of litter, and is inextricably linked with the concept of civic pride, which is pride in one's city or surroundings. A civic pride culture promotes a change away from antisocial behaviours such as littering. However, it is also important to target the appropriate disposal of particular types of waste, such as sanitary waste.
- 3.13 The actions for the public awareness strand are linked to appropriate waste and litter disposal and associated behaviours. Existing campaigns which target the appropriate disposal of particular types of litter, such as the Northern Ireland Water "Bag it and

<sup>16</sup> Littering can sometimes be an unintentional consequence from an activity as is the case in balloon, lantern and plastic duck releases. Children should be made aware of this and also of measures which can mitigate their effects.

Bin it" campaign , are instrumental in helping to change attitudes among the general public. There are a number of campaigns targeted at particular users of the marine environment such as the Coleraine Borough Council sponsored "Line Out" campaign on the appropriate disposal of angling waste and the Royal Yachting Association Green Blue project which educates boat owners and marina staff on the impacts of marine litter and their obligations in relation to waste disposal.

3.14 Linkages between the new and existing public and sector-specific campaigns will be delivered through the Good Beach Summit framework, and key messages from campaigns will be dovetailed and timed to coincide with maritime events.

# Providing accessible information on appropriate litter disposal

3.15 DOE will develop/continuously review paper and web-based sources of information on marine litter. Information on the consequences of coastal litter will be available at DOE and NIEA centres and exhibitions. Information on appropriate litter disposal produced by stakeholders should be shared so that information on campaigns such as the Northern Ireland Water "Bag it and Bin it" campaign is available at DOE and NIEA centres, exhibitions and also at maritime events.

3.16 DOE launched the Beach NI website http://www.beachni.com in May 2012. The site will be continuously reviewed and linkages provided to key stakeholder sites. The site contains linkages to information on the appropriate disposal of litter such as the Northern Ireland Tourist Board's "Leave no Trace" campaign.

## Strand 2 – Statutory Deterrents

# Working in Partnership to deliver effective litter deterrents

- 4.1 Disposing of litter inappropriately is unacceptable; not only is it antisocial and unpleasant, littering is illegal and those who drop litter in any place open to the air are guilty of an offence and face sanction by means of a Fixed Penalty Notice (FPN) or prosecution. Offenders need to realise that the consequences of littering and polluting our coast are the same as those for littering elsewhere.
- 4.2 The environmental quality of coastal areas can also be harmed by dog foul, fly-tipping and poorly maintained private areas. Enforcement has an important role to play in helping to effect a change in public opinion and behaviour.
- 4.3 Sending a clear message that those breaking the law will be sanctioned is an important tool in effecting behaviour change. A clear message on the range of sanctions available has been instrumental in the success of the ban on smoking in public places and in reducing levels of drink driving and will help deliver the objectives of the Strategy.

## Aim

4.4 Consistent enforcement of legislation to deter and address littering, flytipping and poorly maintained private areas of Northern Ireland's beaches and coast.



### **Objective**

• To achieve consistent and robust enforcement of legislation by the relevant authorities.

## **Summary of existing legislation**

- 4.5 Enforcement in Northern Ireland has a sound legislative platform which is summarised below.
- 4.6 Key legislation includes:
  - the Litter (Northern Ireland) Order 1994 (the Litter Order), which applies to a wide range of problems associated with local environmental quality;
  - the Clean Neighbourhoods and Environment Act (Northern Ireland) 2011 (the 2011 Act), which amends and adds further provisions to the Litter Order;

- subordinate legislation introduced under the 2011 Act (the Control of Dogs (Non-application to Designated Land) Order (Northern Ireland) 2012 and the Dog Control Orders (Prescribed Offences and Penalties etc.) Regulations (Northern Ireland) 2012);
- the Waste and Contaminated Land (Northern Ireland) Order 1997 (the 1997 Order), which modifies the provisions of Part II of the Pollution Control and Local Government (Northern Ireland) Order 1978 and relates to waste on land and concerns DOE and council functions in respect of the collection and disposal of waste. The 1997 Order makes further provision in relation to such waste; and
- the Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011, which amends the 1997 Order.

## The Litter (Northern Ireland) Order 1994

4.7 Article 3 of the Litter Order makes it an offence for any person "to throw down, drop or deposit litter in any area open to the air". This offence applies to dropping litter on beaches. Articles 5 and 6 provide for enforcement action in respect of the offence of dropping litter through the use of FPNs or the instigation of criminal proceedings.

## Clean Neighbourhoods and Environment Act (Northern Ireland) 2011

4.8 The 2011 Act gives councils a range of improved powers to enable them

to deal with a wide range of problems associated with local environmental quality, including litter problems, more effectively.

- 4.9 The 2011 Act increases the maximum fine level in respect of littering to £80. A number of councils, including Belfast City Council and Newtownabbey Borough Council, have opted to apply the maximum levels. This sends out a strong signal that littering is an unacceptable activity. Under the 2011 Act, where no amount has been specified the fine level will be £75.
- 4.10 Additional powers available to councils under the 2011 Act includes the right to serve "litter clearing notices" on occupiers, if defacement caused by litter is detrimental to the amenity of the area (section 17). This could include coastal dwellings surrounded by quantities of litter which could be blown out to sea. The 2011 Act also makes provision for an extension to the application of street litter control notices to cover vehicles, stalls and moveable structures used for street vending, which could apply to coastal vendors. This would require vendors to take steps to minimise and clear litter that originates from their stalls (section 18). Section 19 makes it an offence not to comply with the requirements of a street litter control notice.
- 4.11 Section 21 gives councils the power to control the distribution of free, printed matter and prevent such material becoming litter (subject to exceptions for charitable, religious or political material).

## **Control of Dogs**

- 4.12 The 2011 Act introduces a more robust system of dog control, which allows councils to make Dog Control Orders. This provides a flexible replacement for the previous system of byelaws for the control of dogs and dog fouling. A council may designate any area open to the air as a Dog Control Area with certain exceptions, which are specified in the Control of Dogs (Non-application to Designated Land) Order (Northern Ireland) 2012. Exemptions to the application of sanctions apply, linked to a person with a disability, and allowing a defence linked to having the permission of the landowner or authority which has control of the land.
- 4.13 This legislation removes the previous exclusion of land below the high water mark. The Dog Control Orders (Prescribed Offences and Penalties etc.) Regulations (Northern Ireland) 2012 identifies five offences for which sanctions can be applied. These include:
  - failing to remove dog faeces;
  - not keeping a dog on a lead;
  - not putting, and keeping, a dog on a lead when directed to do so by an authorised officer;
  - permitting a dog to enter land from which dogs are excluded; and
  - taking more than a specified number of dogs onto land.

### **Fly-tipping Framework**

- 4.14 Fly-tipped debris contributes to the problem of marine litter. Fly-tipping refers to quantities of litter dropped which are the equivalent of one black bin bag or more; debris below this threshold is litter. Councils are responsible for the removal of litter and currently have a statutory duty to remove waste which is a hazard to public health, or causing a nuisance under the Public Health (Ireland) Act 1878. Within DOE, NIEA is responsible for waste control, and has a duty to dispose of waste which is damaging the environment. The new powers in the Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011 will be implemented following agreement on the operation of the Fly-tipping Framework.
- 4.15 The Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011 gives councils powers, which are currently restricted to DOE under the Waste and Contaminated Land (Northern Ireland) Order 1997. These include the power to carry out investigations into illegal waste activity and, where appropriate, to prosecute for alleged offences. This Act also gives DOE and councils the option to issue FPNs for fly-tipping offences. This will provide a more flexible and cheaper alternative to prosecution for less serious illegal dumping.
- 4.16 Councils will receive new powers, currently restricted to DOE, to require the clearance of illegally deposited waste. The Act also strengthens the powers of both DOE and councils.

The development of the Fly-tipping Framework, which will clarify operating procedures between DOE and councils, is a further opportunity for more effective enforcement.

4.17 NIEA (Land and Resources Management) is currently working with councils to develop operational arrangements to implement the Flytipping Framework. A pilot, which will inform the development of the operational procedures, was established on 25 June 2012.

### **New legislation**

- 4.18 The Minister of the Environment announced plans for a levy on carrier bags starting in 2013. The legislation was brought forward by DOE, and charging will be introduced on a phased basis as follows:
  - phase 1 entails the introduction of a 5 pence levy on single use carrier bags, effective from April 2013 ;and
  - phase 2 will see the levy increase to 10 pence from April 2014 and extended to low-cost reusable bags.
- 4.19 It is anticipated that this legislation will help reduce the levels of pollution associated with plastic bags in the marine environment.

### **Best practice enforcement**

4.20 Northern Ireland is a relatively small geographic area, and a number of initiatives exist which promote the sharing of best practice between local government officials. These include the Improvement Collaboration and Efficiency Programme sponsored by the Northern Ireland Local Government Association (NILGA) and the Society of Local Authority Chief Executives (SOLACE); the provision of common enforcement training by Tidy NI; and events like the Tidy NI annual conference, where best practice is shared between delegates and speakers.

## Strand 3 – Data

## Background

- 5.1 Accurate and reliable information is essential to properly manage and assess the levels of litter present in the marine environment. Data is needed to inform policy development and to evaluate our progress towards meeting policy and legislative commitments. In the past, a shortage of accurate baseline data on the incidence and nature of marine litter has hampered serious consideration of the issue.
- 5.2 Surveys of litter stranded along coastlines are a primary tool for monitoring the levels of litter pollution prevalent in the marine environment. Survey data can be used to measure the effectiveness of management and mitigation measures, identify sources and activities leading to litter pollution, and determine threats to marine biota and ecosystems.

### Aim

5.3 To provide appropriate and reliable data on the levels and composition of coastal litter, which will inform policy development and help monitor progress towards addressing the problem of marine litter.

### **Objectives**

- To develop a methodology for data collection for use by all stakeholders.
- To obtain accurate data on the levels and composition of beach litter.
- To provide data which will help monitor progress towards meeting the Strategy objectives.



• To encourage data sharing between stakeholders.

- 5.4 DOE Marine Division, is responsible for implementation of the MSFD, which requires Member States to achieve GES in their marine waters by 2020. Implementation of the Directive will require the development of a standard robust scientific data set.
- 5.5 Division's Marine role includes responsibility for the collection, analysis collation. and onward transmission of data in respect of MSFD. To achieve this Marine Division is developing procedures to obtain the necessary data and ensure that it is of sufficient quality and quantity to meet these requirements.
- 5.6 Marine Division will act as a conduit for data on Northern Ireland's marine litter, which will be forwarded in the format agreed by the Marine Environmental Data and Information

Network (MEDIN) for use by the European Commission.

- 5.7 Marine Division will coordinate the collection of the necessary data and develop closer working relationships with key stakeholders who have access to data on marine litter. At present there are three main data sets for coastal litter in Northern Ireland. These are:
  - Surveys of litter visible on 23 beaches, identified as bathing waters for the purposes of the Bathing Waters Directive (2006/7/EC),<sup>17</sup> during the bathing season (1 June to 15 September annually);
  - The results of the MCS annual survey undertaken by volunteers over a single weekend (the MCS Beachwatch Big Weekend). As this survey has been undertaken annually since 1993, some comparisons are possible between years; and
  - Data from Tidy NI's Clean Coast campaign, which began in 2010 and Big Spring Clean events, which have been undertaken annually since 2008. Data on the cleanliness of beaches is now included in the Northern Ireland Litter Survey, where beaches have been categorised as a type of recreation area (litter code of practice).
- 5.8 This enables the use of descriptors, giving acceptable and unacceptable levels of cleanliness.

- 5.10 DOE recently developed the website http://www.beachni.com, in conjunction with the Northern Ireland Tourist Board, to showcase Northern Ireland's designated EU bathing waters. In addition, it will also act as a main information point for beach-related news and events. It is proposed that the Department should use this website to highlight the information needed to complete a beach survey and provide links local councils and NGO's to websites. Links for information on the assistance available from each council and instructions on how to complete a combined beach clean and litter survey, could be added to the site and also made easily accessible on council websites.
- 5.11 It is important that local groups realise that they are not alone and the work that they do is important, and that the collection of robust data is

<sup>5.9</sup> Community groups carry out many activities to improve the environment in their locality. Many take part in beach and riverbank litter picks and on occasion have recorded data. At present there is no consistency between the survey techniques used. To ensure that data is collected in a consistent manner, a methodology has been agreed across the European Union. The Strategy proposes that groups should be encouraged to complete litter surveys, using agreed standard documentation and the **OSPAR** methodology. Marine Division will take the lead and work with stakeholders to ensure training and advice is provided on data collection methodology.

<sup>17</sup> OJ No. L64, 4.3.2006, p.37

vital to achieving good environmental status for Northern Ireland's marine environment. The time and effort put in by them collecting data, enables the following to be accomplished:

- the provision of valuable knowledge on the volume and composition of marine litter in Northern Ireland's waters, and in turn provides an understanding of the possible sources;
- the examination of long-term changes in marine litter;
- an increased awareness of marine litter, encouraging the responsible disposal of litter by marine industries and the wider community;
- an increase in awareness of landbased litter (e.g. food packaging) and the consequences for the marine environment;
- a valuable insight into the status of our seas and the effectiveness of campaigns directed towards reducing waste disposal at sea; and
- allows industry to exhibit and substantiate its stewardship role in the marine and coastal environment through examination of levels of specific types of litter associated with particular industries, found on local coasts.

## Strand 4 – Infrastructure

## Background

- 6.1 Coastal infrastructure plays a key role in reducing the risk of litter entering the marine environment. Sustainable, high quality sewerage services can contribute to protecting environment the marine from sewage related debris (SRD) and Appropriate litter. waste water infrastructure is also essential to comply with the requirements of EU Directives and to support economic development.
- 6.2 Tourism is a key driver of the Northern Ireland economy; improving the tourism product is critical if the sector's potential is to be fully realised. Appropriately designed and situated litter bins and prominent signage advising of the consequences of dropping litter will play an important part in helping to ensure the coast is clean and potential tourist revenue from our coast is maximised, while reducing the levels of litter entering the marine environment.
- 6.3 Policies and actions to facilitate the delivery of appropriate infrastructure fall under two main headings: ongoing investment in sewerage services by Northern Ireland Water; and the provision of appropriate litter bins and signage by councils.

### Aim

6.4 To deliver cleaner beaches through an ongoing programme to ensure appropriate and cost-effective coastal infrastructure is in place.



### **Objectives**

- To ensure increasing levels of compliance with water quality requirements and a reduction in levels of SRD through ongoing investment by Northern Ireland Water in a high quality waste water infrastructure.
- To provide appropriate litter bins and signage by councils.

### **Sewerage Services**

- 6.5 Northern Ireland Water is responsible for the delivery of water and sewerage services in Northern Ireland. Northern Ireland Water collects and treats 134 million cubic metres of waste water every year on our behalf. This involves the maintenance and operation of about 1100 waste water treatment works and 14,500km of sewers. Northern Ireland Water has invested heavily in a programme of improvements to sewers and wastewater treatment works. improving levels of compliance with the requirements of environmental legislation.
- 6.6 More than £1 billion has been spent on treatment facilities for the 5 year period up to 2007/08, and investment in improvements to

waste water treatment works and sewer networks continues.

- 6.7 Northern Ireland Water's investment programme includes a number of major projects such as the Belfast Sewers Project, which concluded in 2010. The Project involved work to upgrade existing sewer networks and to increase storm water capacity. As a result, the pollutant load from the sewerage system on the River Lagan and its tributaries has been reduced by 85%.
- 6.8 On-going investment in the system through projects such as the Omega Project. the Rural Wastewater Investment Programme and improvements to sewer networks are increasing compliance with environmental standards and reducing the risk of out-of-sewer flooding. This has resulted in cleaner rivers and beaches. For example, this has contributed to improvements in compliance with the requirements of the EU Bathing Waters Directive. The 2011 Marine Conservation Society **Beachwatch Big Weekend "Summary** Report Results" also indicate a dip of 33% in the amount of SRD on Northern Ireland's beaches.

### **Disposal of litter**

6.9 Councils have invested significant resources in the provision of litter bins in coastal areas. The design of litter bins is of particular importance in coastal regions as wildlife, in particular seagulls, can remove debris from bins. Among the innovative solutions in use in Northern Ireland are compactor bins. These compact waste when a trigger point is reached, thus doubling the storage capacity of the bin. Compactor bins also issue an alert when they are full.

- 6.10 Councils should continue to work proactively to develop and maintain an appropriate number of bins and bin types to meet local needs such as wildlife-proof bins.
- 6.11 It is important that people are aware of the consequences of dropping litter and not disposing appropriately of dog foul on beaches. Information on the penalties for dropping litter signal that councils will would sanction offenders, and alert wouldbe offenders to the possibility that they could be punished for dropping Councils litter. could provide information on beaches on the level of fines that could be imposed for dropping litter or not disposing of dog foul appropriately.

## STRATEGIC GOAL 2: THE REMOVAL OF LITTER FROM THE MARINE ENVIRONMENT

## Strand 1 – Removal

- 7.1 Although the levels of coastal litter fluctuate from year to year, the quantity of marine litter on UK beaches has increased by almost 66% since 1994, with the density of plastic increasing by 102% in the period to 2011<sup>18</sup>. In 2012 levels of litter rose by almost 15% with plastics continuing to make up the majority of litter found<sup>19</sup>. Once in the environment, plastic gradually breaks down into ever smaller particles which can take up to 500 years to decompose fully. Ingesting plastic and becoming entangled in marine litter may be important mortality factors for many marine species.
- 7.2 The removal of litter from the coastal environment is a key element in addressing the problem of marine litter. This is primarily undertaken by local government (coastal councils), the community and voluntary sector and by private individuals, with NIEA responsible for the removal of litter at Crawfordsburn.

### Aim

7.3 To reduce the levels of litter present in the marine area by the safe removal and appropriate disposal of litter deposited on the coast.

## **Objectives**

• To engage with the voluntary and community sector to increase participation in measures aimed at



removing coastal litter, such as the Tidy NI Big Spring Clean Up and the MCS Beachwatch Big Weekend.

- To promote the removal of litter by volunteers to help reduce the levels of marine litter.
- To engage with volunteers and further raise awareness of actions required to safeguard the environment through the appropriate disposal of litter.
- To achieve and sustain a high-quality coastal environment by the consistent and thorough implementation of the revised 2011 Statutory Code of Practice on Litter by councils.

# Role of the community and voluntary sectors

7.4 Community and voluntary organisations play an important role in the removal of marine litter. These include a number of larger organisations, such as the MCS (which hosts the annual Beachwatch Big Weekend), Tidy NI (which manages the Clean Coast programme and

<sup>18</sup> http://www.mcsuk.org/what\_we\_do/ Clean+seas+and+beaches/Beachwatch/Beachwatch+-+latest+results

<sup>19</sup> http://www.mcsuk.org/what\_we\_do/Clean%20seas%20 and%20beaches/Reports%20and%20downloads/ Reports%20and%20downloads

## STRATEGIC GOAL 2: THE REMOVAL OF LITTER FROM THE MARINE ENVIRONMENT

coordinates an annual Big Spring Clean Up of terrestrial, riverine and coastal litter) and the National Trust (which owns or manages 200km of the Northern Ireland coastline and undertakes regular beach cleans).

- 7.5 Evidence suggests that participation in large events like the MCS Beachwatch Weekend Big and the Tidy NI Big Spring Clean Up is increasing. The number of surveys undertaken in Northern Ireland as part of the Beachwatch Big Weekend has doubled from 2010 levels while participation in the Big Spring Clean Up have been increasing annually<sup>20</sup>.
- 7.6 These large organisations, along with councils, provide support to smaller local groups which are active in organising local litter picks with schools and volunteers. They also work with local traders to ensure that litter from their premises is disposed of appropriately. Councils currently provide important linkages and varying levels support to community groups including litterpicking equipment, the removal of litter, assistance in running fun days and community events.
- 7.7 The development of a sense of renewed ownership, community activism and local and civic pride will help deliver this strategic goal.
- 7.8 Recognising and celebrating the volunteering taking place is an important element in engendering a sense of respect for the environment.

There are a number of existing events, such as the Coca-Cola Coastal Care Awards and the Good Beach Awards managed by Tidy NI, which celebrate the work of groups and individuals in removing debris from our beaches.

## **Councils' Statutory Responsibilities**

- 7.9 Councils are responsible for cleaning amenity beaches under Article
  7(1) and (2) of the Litter (Northern Ireland) Order 1994 and the new 2012 Code of Practice on Litter<sup>21</sup>, which incorporates the requirements of the Clean Neighbourhoods and Environment Act (Northern Ireland) 2011.
- 7.10 The 2012 Code sets out that councils should identify beaches which could be described as amenity beaches and that these should, as a minimum, be kept clear of litter during the traditional bathing season<sup>22</sup>. The 2012 Code outlines four grades of cleanliness (A to D) and states that grade B (predominantly free of litter apart from some small items) is an appropriate standard of cleanliness for beaches.
- 7.11 The 2012 Code also recommends that while the duty to cleanse does not extend beyond the traditional bathing season, councils should be aware of the differing nature of beaches within their areas, and undertake a regular monitoring programme of beaches to include the impact of litter in the intertidal

<sup>20</sup> In 2013 53,626 participated in the Big Spring Clean Up, which is almost double the 27,00 who participated in 2012..

<sup>21</sup> This replaces the 1994 Code of Practice on Litter.

<sup>22</sup> The duty to cleanse does not apply to the removal of natural materials such as seaweed.

## STRATEGIC GOAL 2: THE REMOVAL OF LITTER FROM THE MARINE ENVIRONMENT

area, and develop and undertake cleansing, where appropriate.

7.12 The cleanliness of beaches in terms of the Litter Pollution Index will be included in the 2012 Northern Ireland Litter Survey. It is recommended that this continues and that clear reference is made to the time of year the beaches are surveyed and whether the beaches surveyed are amenity beaches.



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No.	Measure	Desired Outcome	Delivered by	Status
1.	Delivery of litter and waste elements of the Eco-schools Programme.	Children develop responsible attitudes and commitment, both at home and in the wider community, towards appropriate litter and waste disposal and elimination messages. Children will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	Tidy NI administering scheme, which is delivered in partnership with schools and other stakeholders.	On-going.
2.	Delivery of the Wrigley's Litter Less Campaign.	Children will become more aware of appropriate litter disposal messages, which will help effect behavioural changes.	Tidy NI as part of Eco-schools Programme.	On-going.
3.	Young Reporters on the Environment.	Post-primary children will become more aware of and report on environmental problems caused by inappropriate behaviour.	Tidy NI administering scheme, which is delivered in partnership with schools and other stakeholders.	On-going.
4.	Education in environmental awareness.	Children will become more aware of appropriate litter disposal messages, which will help effect behavioural changes.	Stakeholders including councils, National Trust, voluntary and community sector groups.	On-going.
5.	Blue Flag award for beaches and marinas. Operators must carry out five environmental education activities during the bathing season.	Marina and beach (mainly councils) operators and their local communities are more aware of the benefits of appropriate litter disposal.	Tidy NI leading, in conjunction with beach and marina operators, Northern Ireland Tourist Board, and local stakeholders.	On-going.
6.	Gold Anchor Scheme	Marina operators are more aware of the benefits of appropriate waste disposal.	The Yacht Harbour Association.	On-going.

No.	Measure	Desired Outcome	Delivered by	Status
7.	Delivery of waste prevention elements of the Waste Management Strategy such as measures to encourage the re-use of products and the development of Waste Prevention Programmes.	Promotion of sustainable consumption and reuse of items, leading to attitudinal change to appropriate disposal of waste.	DOE through the Northern Ireland Waste Management Strategy.	On-going.
8.	Delivery of education elements of the Waste Management Strategy, including Love Food/Hate Waste demonstrations at universities, fashion souks and providing information on wormeries.	Children and public develop responsible attitudes and commitment towards appropriate waste disposal and elimination messages. This will help effect behavioural changes towards the appropriate disposal of litter.	DOE in conjunction with partner organisations including Tidy NI.	On-going.
9.	Encourage the public to reuse items such as plastic bags, recycle used items and buy fewer items.	Reduction in levels of plastic present in environment and implementation of the Northern Ireland Waste Management Strategy.	DOE through the Northern Ireland Waste Management Strategy.	On-going.

No.	Measure	Desired Outcome	Delivered by	Status
10.	Delivery of Northern Ireland Water Education Programme, which includes engagement with many sectors such as schools, hospitals, nursing homes, Hotel Federation and caravan parks. The Programme also includes the "Bag it and Bin it" campaign for inappropriate flushing and the "Stop and Think, Not Down the Sink" campaign for fats, oils and greases. A mobile unit (the NIW Water Bus) visits schools to facilitate interactive learning on the efficient use of water and appropriate disposal of sanitary items.	Children and public develop responsible attitudes and commitment towards appropriate waste disposal and elimination messages. This will help effect behavioural changes towards the appropriate disposal of litter leading to a reduction in levels of marine litter.	Northern Ireland Water.	On-going.
11.	Fora such as the ESDF, which provides environmental training for new teachers, a quarterly newsletter and a resource guide for all environmental education providers.	Teachers are more sensitive to the importance of environmental awareness, educational resources available and best practice, which will lead to children developing more responsible attitudes towards appropriate litter disposal.	Northern Ireland Environment Link and partners.	On-going.
12.	Green Travel Code.	Public are more aware of actions needed to be a responsible traveller, including the need to dispose of litter appropriately.	Northern Ireland Tourist Board leading.	On-going, available on www.beachni. com

No.	Measure	Desired Outcome	Delivered by	Status
13.	Line Out Campaign.	Recreational fishermen more aware of simple steps they can take to protect the marine environment leading to a reduction in the harmful impacts of discarded and lost recreational fishing line and tackle in the coastal and marine environments.	Coleraine BC in partnership with MCS.	On-going - official launch on 25 April 2013.
14.	The Green Blue Project.	Boat owners will become more aware of the impacts of marine litter and will dispose of their waste more effectively.	Royal Yachting Association in conjunction with DOE.	On-going.
		Marina operators will be more aware of their responsibilities in relation to waste disposal and act accordingly.		
15.	Recognition that balloon, lantern and plastic duck releases are a form of littering.	Reduction in the numbers of releases leading to an overall reduction in levels of marine litter.	Information being provided through educational initiatives.	On-going – information available on www.beachni. com. MCS progressing with councils.
16.	Riverwatch outreach programme and Visitor Centre.	Children and visitors to the Visitor Centre more aware of riverine environment and the problems caused by litter.	Loughs Agency.	On-going through events like River Discovery Day on 16th August 2013.
17.	Inclusion of a focus on marine litter in Young Reporters on the Environment pilot training and educational programme.	Children will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	DOE to lead.	Actioned. (Moved from Proposed Measures)

No.	Measure	Desired Outcome	Delivered by	Status
18.	Coordinated delivery of education on marine litter by stakeholders DOE, Tidy NI, Northern Ireland Water, councils, National Trust, etc.	Development and presentation of a clearly focused message, delivered in a joined-up way. Children will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	Discussion and agreement through ESDF.	On-going. (Moved from Proposed Measures)
19.	Display of posters providing advice on the appropriate disposal of sanitary waste in Northern Ireland Civil Service Buildings.	Staff will become more aware of appropriate disposal of sanitary products leading to a reduction in SRD and reduction in remedial work for Northern Ireland Water.	Northern Ireland Water in partnership with the Northern Ireland Civil Service.	On-going. Emailed to Premises Officers.
20.	Reference to marine litter to be included in Waste Prevention Programme.	Public better informed of the negative outcomes of marine litter, leading to a reduction in coastal litter.	DOE to action.	Actioned.
21.	Closer relationships between DOE, councils, other stakeholders and universities to help develop awareness of the levels of marine litter present on Northern Ireland's beaches and its effects on the marine environment.	Sharing resources and access to information to increase understanding and awareness of the problems caused by marine litter.	DOE to lead through fora such as ESDF and Good Beach Summits.	On-going.
22.	Development of educational material aimed at teenage girls on the appropriate disposal of sanitary items.	Appropriate disposal of sanitary items leading to a reduction in SRD and reduction in remedial work for Northern Ireland Water.	Northern Ireland Water to develop information and linkages with schools and health trusts.	On-going.

No.	Measure	Desired Outcome	Delivered by	Status
23.	Provision of education on the consequences of the inappropriate disposal of nappies, sanitary products and nappy bags to mother and toddler groups.	Appropriate disposal of nappies, leading to a reduction in SRD and in remedial work for Northern Ireland Water.	Northern Ireland Water to deliver.	On-going
24.	Regeneration of bag it and bin it campaign.	Public will become more aware of appropriate disposal of sanitary products, leading to a reduction in SRD and in remedial work for Northern Ireland Water.	Northern Ireland Water to lead.	On-going – launch of schools art competition scheduled for September 2013.
25.	"Don't flush" van branding.	Public will become more aware of appropriate disposal of sanitary products leading to a reduction in SRD and reduction in remedial work for Northern Ireland Water.	Northern Ireland Water to take forward in partnership with Tidy NI.	On-going. Don't Flush branding will be used on all wastewater vehicles.
26.	Development and implementation of campaigns like "Line Out" campaign aimed at anglers, "Leave No Trace" campaign aimed at tourists and Blue Flag for boat owners.	Raise awareness on the appropriate disposal of waste generated by recreational/sports angling and achieve a reduction of this type of litter entering the marine environment.	Coleraine BC, Northern Ireland Tourist Board, Tidy NI, other stakeholders to lead as appropriate. Discussion and sharing ideas and lessons learnt at Good Beach Summits.	On-going.
27.	Provision of information on the "Bag it and Bin it", "Line Out" and associated campaigns at DOE centres and exhibitions.	Public more aware of appropriate disposal of sanitary products, leading to a reduction in SRD.	DOE and Northern Ireland Water in partnership.	On-going.

# ACTION PLAN – STRATEGIC GOAL 1 — Strand 1 – Learning and Communication EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
28.	Continuous review of websites including http://www.beachni. com, to ensure up-to- date information and linkages are provided on the appropriate disposal of litter.	Public and businesses better informed of the appropriate disposal of marine litter, leading to a reduction in coastal litter.	DOE, Northern Ireland Water, Northern Ireland Tourist Board, councils, Tidy NI, MCS – all stakeholders to be reviewed through the auspices of the Good Beach Summit.	On-going.
29.	The international Blue Flag award for boat owners to be explored as a visible means by which responsible owners of vessels can demonstrate they are abiding by a strict environmental code of conduct.	Boat owners to be more aware of the negative outcomes of marine litter, leading to a reduction in coastal litter.	DOE in partnership with Tidy NI.	On-going.
30.	Development of Codes of Practice for users of Strangford Lough.	Public are more aware of actions needed to ensure the Strangford Lough area is used sustainably, including the need to dispose of litter appropriately.	To be developed by the Strangford and Lecale Partnership in concert with DOE Marine Division.	On-going.
31.	Production of a specific resource which focuses on marine litter within elements of the key stage 3 "Environment and Society Curriculum".	Children will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	DOE to work with CCEA.	To be actioned.

# ACTION PLAN – STRATEGIC GOAL 1 — Strand 1 – Learning and Communication ADDITIONAL MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
32.	Development of marine- specific stories for a second series of Rubbish Monster books.	Children will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	DOE in partnership with Tidy NI.	On-going.
33.	Workshops on marine litter and linkages with the YRE and Eco-schools programmes.	Raise awareness on the consequences of marine litter. Promotion of appropriate waste disposal practice.	DOE to lead through consultation ESDF.	To be actioned.
34.	"Teach on the Beach" mobile exhibition on marine litter.	Children and members of the public will become more aware of the specific consequences of dropping litter which can end up in the marine area, and will learn how behavioural change can help reduce coastal litter.	Coleraine Borough Council	To be rolled out summer 2013.
35.	Development of a page on the DOE website, which provides information on the appropriate disposal of litter and the consequences of the inappropriate disposal of litter in the terrestrial and marine environments. Also to provide links to stakeholder websites.	Public more aware on the appropriate disposal of litter.	DOE to develop.	To be actioned.

# ACTION PLAN – STRATEGIC GOAL 1 — Strand 1 – Learning and Communication ADDITIONAL MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
36.	Development of information leaflets on the consequences of different types of marine litter, including dog foul and plastic on bathing water quality and marine life. The leaflets should include the enforcement tools available to councils to fine offenders. These leaflets should be made available at DOE properties, exhibitions and the proposed litter section of the DOE website. Paper copies of the leaflet to be available to councils and other stakeholders and distributed as appropriate e.g. by councils when dog licences are being renewed.	Public more aware of appropriate disposal of dog foul leading to a reduction in fouling.	DOE to lead in partnership with Northern Ireland Water, councils and associations of veterinary practitioners.	To be actioned.
37.	Education campaign aimed at encouraging the local fishing industry to reduce the level of fishing-related debris encountered on the coastline.	Fishing industry more aware of the negative outcomes of marine litter, leading to a reduction in coastal litter.	DOE in partnership with Tidy NI.	To be actioned.

# ACTION PLAN – STRATEGIC GOAL 1 — Strand 2 – Statutory Deterrents EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
38.	Sharing best practice through fora such as the NILGA and SOLACE sponsored Improvement Collaboration and Efficiency Programme and the Tidy NI annual litter conference.	Shared learning and dissemination of best practice.	NILGA, SOLACE and Tidy NI	On-going.
39.	Local government reform.	Reduction in the number of councils leading to standardisation of approach across larger regions and sharing of best practice within Northern Ireland.	DOE and councils.	On-going.
40.	Clean Neighbourhoods and Environment Act (Northern Ireland) 2011.	Improved powers to deal with issues affecting local environmental quality leading to reduction in littering.	Councils.	On-going.
41.	Development of the Fly- tipping Framework.	Increased clarity and co-operative working between DOE and councils to enable full implementation of the Waste and Contaminated Land (Amendment) Act (Northern Ireland) 2011, leading to a reduction in fly-tipping.	DOE and councils.	On-going.
42.	Introduction of the carrier bag levy.	Reduction in the levels of pollution associated with plastic bags in the marine environment.	DOE legislation.	Actioned.

# ACTION PLAN – STRATEGIC GOAL 1 — Strand 2 – Statutory Deterrents EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
43.	Proactive enforcement of legislation to take account of local circumstances such as joint litter patrols with the PSNI to increase the profile of enforcement measures, the use of self-financing enforcement posts, the use of part-time wardens with flexible working hours (targeted at specific times when beaches are at their busiest), and wardens operating in pairs for safety reasons.	Reduction in levels of offending, leading to a reduction in levels of marine litter.	Councils.	On-going.
44.	Maximum profile of the enforcement of statutory deterrents in press and council websites.	Increased understanding of the financial and legal consequences of littering leading to a reduction in offending and consequent reduction in levels of marine litter.	Councils/Tidy NI.	On-going.

### ACTION PLAN – STRATEGIC GOAL 1 — Strand 3 – Data EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
45.	Agreement between stakeholders to share data.	Development of a more complete data set, which can be used for MSFD reporting purposes.	DOE, Tidy NI, MCS.	On-going.
46.	Use of a protocol for sharing data between DOE and stakeholders.	Development of data set, which can be used for MSFD reporting purposes.	Tidy NI, DOE Marine Division, MCS and stakeholders	On-going.
47.	Monitoring of selected beaches including a cross section of amenity and non-amenity beaches.	Development of a more complete data set, which can be used for MSFD reporting purposes.	DOE Marine Division in partnership with Tidy N.I	On-going. Initial report covering the period August to December 2012 is available on www.beachni. com
48.	Collection of data during Big Spring Clean Up.	Development of a more complete data set, which could be used to identify sources and hotspots.	Tidy NI and volunteers. Supported by stakeholders including DOE, Belfast Telegraph.	On-going.
49.	Clean Coast Programme.	Development of a more complete data set, which could be used to identify sources and hotspots.	Tidy NI in association with Coca-Cola and voluntary and community sector groups.	On-going.
50.	Collection of data, detailing the types and quantity of litter to be found in the marine environment as part of beach cleans undertaken during Beachwatch Big Weekend.	Development of a more complete data set, which can be used for MSFD reporting purposes.	MCS in partnership with Marks and Spencer, supported by volunteers and other stakeholders.	On-going.

#### ACTION PLAN – STRATEGIC GOAL 1 — Strand 3 – Data EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
51.	Development of data in a common format, which can enable data to be shared between stakeholder computer systems.	Development of a more complete data set, which can be used for MSFD reporting purposes.	To be agreed between DOE and stakeholders.	Actioned – use of OSPAR methodology agreed.
52.	Inclusion of beach cleanliness in the annual Northern Ireland Litter Survey.	Development of a more complete data set and analysis of trends.	Tidy NI.	Actioned.
53.	Inclusion of beach litter data in Northern Ireland Environmental Statistics Report.	Increase in the profile and public awareness of marine litter.	DOE Marine Division and Northern Ireland Statistics and Research Agency (NISRA)	Actioned – beach litter data will appear in Northern Ireland Environmental Statistics Report to be published in 2014.

#### ACTION PLAN – STRATEGIC GOAL 1 — Strand 3 – Data ADDITIONAL MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
54.	Standard data capture documentation using OSPAR methodology is used at all litter picks.	Development of data set, which could be used to identify sources and hotspots.	DOE and stakeholders via websites.	To be actioned.
55.	Provision of suitable training including an education pack to ensure volunteers are aware of correct data capture methodology during a litter pick.	Development of data set, which can be used for could be used to identify sources and hotspots.	TidyNI	To be actioned.

#### **ACTION PLAN – STRATEGIC GOAL 1 — Strand 4 – Infrastructure EXISTING MEASURES**

No.	Measure	Desired Outcome	Delivered by	Status
56.	Project Omega. This is a 25-year Public Private Partnership to upgrade, operate and maintain existing waste water treatment works (WWTW) and wastewater pumping stations (WWPS) at the following locations across Northern Ireland:	Improved waste water infrastructure contributing to cleaner rivers and beaches.	Delivered by Northern Ireland Water.	Actioned -upgrades completed. The PPP contractors are now operating the WWTW to meet consent conditions.
	<ul> <li>North Down Ards- WWT, Donaghadee;</li> </ul>			
	Donagadee WWPS;			
	Millisle WWPS;			
	<ul> <li>Bullays Hill, Lurgan/ Seagoe, Portadown/ Ballynacor, Craigavon WWTWs;</li> </ul>	Seagoe, Portadown/ Ballynacor, Craigavon		
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	Armagh WWTW,     Armagh; and			
	Ballyrickard WWTW, Comber			

#### ACTION PLAN – STRATEGIC GOAL 1 — Strand 4 – Infrastructure EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
57.	Ongoing upgrades to waste water treatment infrastructure such as the £7million upgrade to the Newcastle WWTW which commenced in January 2012, the £4million investment to improve water quality in the river Foyle completed in November 2011 and the improvement works to the Culmore WWTW announced in September 2011.	Improved waste water infrastructure contributing to cleaner rivers and beaches.	Northern Ireland Water.	On-going.
58.	Ongoing installation of 6mm screens through delivery of Drainage Area Plans, on a priority basis.	Removal of larger items of SRD.	Northern Ireland Water in discussion with NIEA.	On-going.
59.	Ongoing development and maintenance of appropriate coastal litter bins.	Appropriate litter disposal, which will help reduce marine litter.	Councils.	On-going.
60.	Provision of facilities for the disposal of waste oil and the segregation, collection and disposal of garbage from vessels moored in port.	Facilitating appropriate litter disposal which will help reduce marine litter.	Northern Ireland Fishery Harbour Authority.	On-going.

#### ACTION PLAN – STRATEGIC GOAL 1 — Strand 4 – Infrastructure EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
61.	Ongoing maintenance and provision of appropriate bins to dispose of fishing waste.	Facilitating appropriate litter disposal which will help reduce marine litter.	Northern Ireland Fishery Harbour Authority.	On-going.
62.	Provision of bins for the disposal of angling litter.	Facilitating appropriate litter disposal which will help reduce marine litter.	Coleraine BC in partnership with MCS.	Actioned - official launch on 25 April 2013.

#### **ACTION PLAN – STRATEGIC GOAL 1 — Strand 4 – Infrastructure ADDITIONAL MEASURES**

No.	Measure	Desired Outcome	Delivered by	Status
63.	Inclusion of information on beach signage on fines for dropping litter.	Public aware of the consequences of dropping litter, which will lead to a reduction in litter levels.	Discussion with councils through the Good Beach Summit forum.	To be actioned through discussion at next GBS.
64.	Increased awareness of sources and use of funding available such as the Coastal Communities Fund, European Fisheries Fund Axis 4 and Interreg etc.	Ongoing investment in infrastructure to facilitate environmental improvement.	The Crown Estate, councils, harbour authorities and voluntary and community sector groups.	To be actioned through discussion at next GBS.

## ACTION PLAN – STRATEGIC GOAL 2 — The Removal of Litter EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
65.	Cleaning of beaches designated under the Quality of Bathing Water Regulations (Northern Ireland) 2008 as bathing waters during the bathing season.	Reduction of litter present on amenity beaches.	All bathing water operators.	On-going.
66.	Big Spring Clean Up.	Removal of litter by the public from terrestrial, riverine and coastal environment, leading to a reduction in marine litter and an increasing awareness of the importance of appropriate litter disposal and behavioural change.	Tidy NI and volunteers. Supported by stakeholders including DOE, Belfast Telegraph.	On-going, volunteer numbers increasing.
67.	Clean Coast Programme which is currently operated between Northern Ireland, Ireland and Wales. The clean up of Bray beach in 2011 is an example of the cross border nature of the Programme and a further event is planned for later in 2013.	Removal of litter by the groups from terrestrial, riverine and coastal environment, leading to a reduction in marine litter and an increasing awareness of the importance of appropriate litter disposal and behavioural change.	Tidy NI, An Taisce, Keep Wales Tidy in association with Coca-Cola and voluntary and community sector groups.	On-going.
68.	Beachwatch Big Weekend.	Removal and monitoring (by means of a recognised survey methodology) of litter by the public from beaches, leading to a reduction in marine litter and an increased awareness of the importance of appropriate litter disposal and behavioural change.	MCS in partnership with Marks and Spencer. Supported by volunteers and other stakeholders.	On-going, 9 beaches cleaned in 2012.

## ACTION PLAN – STRATEGIC GOAL 2 — The Removal of Litter EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
69.	Beach litter picks to include initiatives to adopt areas of coastline.	Reduction in levels of litter on certain beaches and an increased awareness of the importance of appropriate litter disposal and behavioural change.	Community and voluntary sector groups including the National Trust in partnership with councils.	On-going.
70.	The Coca-Cola Coast Care Awards, managed by Tidy NI, reward outstanding efforts by individuals and groups to clean up our beaches.	Publicity and recognition of the contribution voluntary activity in cleaning beaches, leading to increasing participation in litter picks, increased awareness of the importance of appropriate litter disposal and behavioural change and a reduction in marine litter.	Tidy NI supported by Coca Cola.	On-going.
71.	Participation in litter picks by staff as part of corporate responsibility events.	Increased awareness of problem of marine litter and the importance of appropriate litter disposal and behavioural change leading to a reduction in litter present on beaches.	Stakeholders including DOE, Northern Ireland Water in partnership with voluntary and community sector organisations.	On-going.
72.	"Litter Champions Project", which encourages volunteers to give time to the community by cleaning local areas (beaches etc).	Increased awareness of problem of marine litter and the importance of appropriate litter disposal and behavioural change leading to a reduction in litter present on beaches.	Carrickfergus and Newtownabbey Borough Councils supported by O2.	On-going.
73.	"Coastal Guardians Project", which is a joint initiative in Co. Down to produce "Coastal Guardian Packs" building on the capacity of local volunteers.	Increased awareness of problem of marine litter and respect for the environment and the importance of appropriate litter disposal and behavioural change, leading to a leading to a reduction in litter present on beaches.	Strangford Lough and Lecale Partnership in concert with Ards Borough Council, North Down Borough Council and Down District Council.	On-going.

### ACTION PLAN – STRATEGIC GOAL 2 — The Removal of Litter EXISTING MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
74.	Development of collaborative projects such as "Coastal Guardians".	Increased community involvement in the removal of litter and respect for the marine environment leading to a growing awareness of the importance of appropriate litter disposal and behavioural and a reduction in marine litter.	Discussion with councils and other stakeholders through the auspices of the Good Beach Summit forum.	
75.	On-going innovation in existing programmes such as participation by scuba divers in removing litter from the marine area in the Clean Coast Programme.	Removal of litter from the marine environment coupled with a growing awareness of the importance of appropriate litter disposal and behavioural change leading to a leading to a sense of civic pride and a reduction in marine litter.	Innovation by stakeholders.	On-going-to be discussed at next Good Beach Summit.
76.	Guidance Document for Responding to Pollution Incidents	Provides staff with advice on how to respond to pollution incidents including prevention, mitigation during an event and mitigation after an event. Cleaning up and remediation, informing stakeholders and learning lessons are included as activities in mitigation after the event.	NI Water.	On-going- accessible to staff.

#### ACTION PLAN – STRATEGIC GOAL 2 — The Removal of Litter ADDITIONAL MEASURES

No.	Measure	Desired Outcome	Delivered by	Status
77.	Provision of information relating to the type of support provided by councils available for voluntary and community groups such as equipment, insurance and waste collection facilities on council websites.	Increased participation in beach cleans, growing awareness of the importance of appropriate litter disposal and behavioural change leading to a leading to a reduction in marine litter.	Discussion with councils through the Good Beach Summit forum.	To be actioned through discussion at next Good Beach Summit.
78.	Development of linkages between stakeholder websites and events section of http://www. beachni.com event site to provide information on how volunteers can become involved in the removal of litter from the marine environment.	Increased participation in beach cleans, growing awareness of the importance of appropriate litter disposal and behavioural change leading to a leading to a sense of civic pride and a reduction in marine litter.	Discussion with councils and other stakeholders such as the National Trust, Tidy NI, MCS and voluntary and community groups through the Good Beach Summit forum.	On-going, information on the events section of www.beachni. com continues to be regularly updated. Development of linkages to be auctioned through discussions at next GBS.

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