



Subject:	The use of Seabins to capture plastics in the marine environment
Date:	5 March 2019
Reporting Officer:	Nigel Grimshaw, Strategic Director City & Neighbourhood Services
Contact Officer:	Tim Walker, Resources & Fleet Manager

Restricted Reports	
Is this report restricted?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If Yes, when will the report become unrestricted?	
After Committee Decision	<input type="checkbox"/>
After Council Decision	<input type="checkbox"/>
Sometime in the future	<input type="checkbox"/>
Never	<input type="checkbox"/>

Call-in	
Is the decision eligible for Call-in?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

1.0	Purpose of Report or Summary of main Issues
1.1	To respond to the motion raised at the Council meeting of 4 December 2018, namely;
1.2	<i>The Council recognises that more than a third of marine litter comes directly from the public and half the plastic we use is single use. In an attempt to address this problem, the Council agrees to work collaboratively with the Harbour Commissioner's Port of Belfast and the Rivers Agency in establishing and procuring Sea bins, to be placed strategically at points along the River Lagan and Belfast Lough.</i>
2.0	Recommendations
2.1	The Committee is asked to; <ul style="list-style-type: none">Note the contents of the report and that the current pilot is underway in the Harbour area and also to note the fact that Seabins are less suitable on rivers.

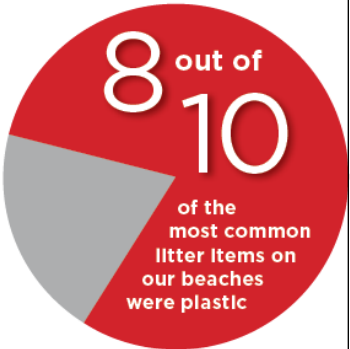
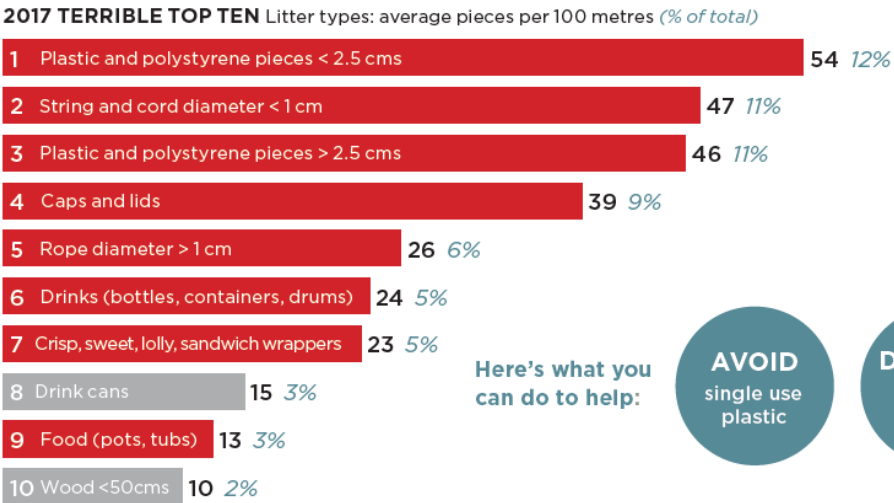
3.0 Main report

Background

3.1 Marine and waterways litter is a major global issue. The BBC’s Blue Planet opened the public’s eyes to the impact of litter and, specifically, plastics within the marine environment. Aquatic wildlife are at risk from the floating and submerged debris, often mistaking the plastic as food, leading to digestive difficulties and often resulting in a slow, painful death.

3.2 The sheer scale of this issue can sometimes be daunting and difficult for the public to translate into steps they can take to tackle the matter. Keep Northern Ireland Beautiful (KNIB), through its “Marine Litter Report 2017”, aims to educate and inform the public in this regard through infographics and research. Their survey found that on local beaches, 82% of all marine litter was plastic and 30% of all litter was single use plastics (plastic bags, coffee cups, soft drinks cups, plastic bottles, and cutlery). The most regular offenders are highlighted in a Terrible Top Ten graphic (for details the KNIB Marine Survey report, see Appendix 1).

The plastic problem



Here’s what you can do to help:

- AVOID** single use plastic
- DISPOSE** of waste carefully
- DEMAND** alternatives to plastic



The Marine Litter Report 2017 was funded by the Department of Agriculture, Environment and Rural Affairs.

3.3 The primary actions to mitigate plastics within waterways are based on avoiding single use plastics, seeking alternatives to plastic packaging where practicable and correctly disposing of waste. This requires a combination of public behaviour change combined with legislative instruments to drive change within the manufacturing and retail sectors.

3.4 Notable progress has been made in recent years on several preventative measures;

- discount schemes for refillable coffee cups at a number of high street coffee outlets,
- refillable water stations – aimed at reducing single use plastic water bottles
- UK government ban on the use of plastic micro-beads in cosmetic and personal care products (Jan 2018)
- EU proposed ban on single use plastic products such as, plastic cotton buds, cutlery, plates, straws, drink stirrers and sticks for balloons and plans to make producers cover more of the costs of waste management and clean-up. Further awareness raising measures are proposed for food containers, packets and wrappers (such as for crisps and sweets), drinks containers and cups, tobacco products with filters (such as cigarette butts), wet wipes, balloons, and lightweight plastic bags (this is called extended producer responsibility – EPR).

3.5 The Council has also been taking strides to minimise single use plastic products in its own waste arisings and introduced a “*latte levy*” on single use cups at the Atrium restaurant to encourage use of ceramic crockery rather than single use items.

3.6 In order to deal with marine and waterways plastic issue effectively, it is important to have an operational perspective to deal with the issue when the preventative measures break down. Given the challenges of working in waterways, innovative approaches to dealing with this particular litter stream are welcome and, in this context, the Seabin was developed.

3.7 The Seabin is a floating debris interception device designed to be installed in marinas, yacht clubs, ports and any water body with a calm environment and associated services available. Typically it is installed in a specific debris problem area in a marina on a floating dock. The correct positioning means the prevailing wind and sea currents push the debris towards the Seabin.

3.8 It can capture 1.5kg of floating debris per day (1.5T/unit/year approx) including micro-plastics greater than 2 mm. Water is sucked from the surface and passes through a catch bag inside the Seabin, with a submersible water pump, plugged directly into 110/220 V outlet. The water is then pumped back into the marina leaving litter and debris trapped in the catch bag. The catch bag can hold up to 20kg of debris and requires daily checks and emptying as needed. The cost of a device is around £3,000 and operating costs are estimated at £1/day. Further details are available on site <https://www.seabinproject.com>

3.9 **In December 2018, following the notice of motion, discussions were held with the Belfast Harbour Commissioner (BHC). Ards & North Down Borough Council revealed that they**

	<p>had installed a Seabin at Bangor Marina in November 2018. BHC also installed a unit in the Abercorn Basin behind the SSE Arena as a pilot, which has been operational since the start of February 2019 (for photographs, see Appendix 2).</p> <p>3.10 Subject the outcome of these pilots, Seabins may show that they are a suitable clean-up device in a marina environment. During research for this motion however it became evident that they are less suitable on riverbanks, where significant amounts of debris accumulate. Appendix 3 contains a selection of photographs taken on a stretch of the Lagan close to the Gasworks site highlighting local issue.</p> <p>3.11 The Council will liaises with its partners on the Rivers Forum and, primarily, Department for Communities to raise the issue of inland waterway litter on the river Lagan and to enquire what their programme of work is to improve this environment for wildlife, improve amenities for the local community and to attract visitors.</p> <p><u>Financial & Resource Implications</u></p> <p>3.12 There are no financial implications associated with this report.</p> <p><u>Equality or Good Relations Implications/Rural Needs Assessment</u></p> <p>3.13 There are no issues associated with this report.</p>
4.0	<p>Appendices</p> <p>Appendix 1 – KNIB Marine Litter Report 2017</p> <p>Appendix 2 – Photos of Abercorn Basin Seabin</p> <p>Appendix 3 – Photos of litter on banks of river Lagan at Gasworks</p>