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FAO the Scrutiny Panel

Reducing Use of Plastics in Jersey – request for Written Submission

Thank you for the opportunity to provide information to the scrutiny panel. We would like to address the specific questions raised, as follows:

i. What are the main issues associated with plastic pollution and the threat this poses for the environment, both globally and specifically for Jersey.

Putting aside the fact that the mere manufacture of plastic pollutes air, land and water and exposes workers to toxic chemicals (including carcinogens) we would highlight the main issues associated with plastic pollution as follows:

- Effects of plastic pollution on marine wildlife. Plastic and synthetic materials are the most common types of marine debris and cause the most problems for marine animals and birds. At least 267 different species are known to have suffered from entanglement or ingestion of marine debris including seabirds, turtles, seals, sea lions, whales and fish. The scale of contamination of the marine environment by plastic debris is vast. It is found floating in all the world's oceans, everywhere from polar regions to the equator.¹
- Effects of Plastic particles polluting our soil. It is estimated that one third of all plastic waste ends up in soil or freshwater. Most of this plastic disintegrates into particles smaller than five millimeters, known as microplastics, and these break down further into nanoparticles (less than 0.1 micrometers in size). The problem is that these particles are entering the food chain. Sewage is an important factor in the distribution of microplastics on land (the method used in Jersey), and microplastics can even be found in tap water.²
- Effect of degrading plastics on green house gas emissions and the knock-on effect on climate change. Plastic is known to release a variety of chemicals during degradation, which has a negative impact on organisms and ecosystems. A recent study by the University of Hawaii at

¹ https://www.greenpeace.org/archive-international/Global/international/planet-2/report/2007/8/plastic_ocean_report.pdf

² <http://www.unenvironment.org/news-and-stories/story/plastic-planet-how-tiny-plastic-particles-are-polluting-our-soil>

Manoa found the unexpected discovery of universal production of greenhouse gases methane and ethylene by the most common plastics when exposed to sunlight. The science team tested polycarbonate, acrylic, polypropylene, polyethylene terephthalate, polystyrene, high-density polyethylene and low-density polyethylene (LDPE) -- materials used to make food storage, textiles, construction materials, and various plastic goods. Polyethylene, used in shopping bags, is the most produced and discarded synthetic polymer globally and was found to be the most prolific emitter of both gases.³

- Effects of plastic pollution on human health.
 - A range of chemicals that are used in the manufacture and use of plastics are known to be toxic. The biomonitoring approach has demonstrated phthalate and BPA, as well as other additives in plastics, are present in the human population.⁴ BPA is an endocrine disruptor which can imitate the body's hormones and interfere with the productions, secretion, transport, action, function and elimination of natural hormones.⁵
 - Persistent organic pollutants (POPs) are chemicals of global concern due to their potential for long-range transport, persistence in the environment, ability to bio-magnify (move up the food chain) and bio-accumulate (absorbs a substance faster than loses it) in ecosystems, as well as their significant negative effects on human health and the environment. For some compounds and scenarios, even low levels of POPs can lead to increased cancer risk, reproductive disorders, alteration of the immune system, neurobehavioral impairment, endocrine disruption, genotoxicity and increased birth defects.⁶
 - Plastics in the food chain. Ingested plastic has lasting detrimental effects. Besides posing a physical hazard to the digestive tracts of fish, plastics in the ocean can absorb and concentrate organic pollutants such as PCBs and DDT from the surrounding seawater. They are passed up the food chain when predators, such as humans, eat prey that has been contaminated.⁷

The effects to the global community and Jersey are the same. In Jersey plastic pollution has an effect on farming, fishing and tourism as well as water quality, air quality, waste management and, most of all, human health.

Microplastics, including bio beads⁸ and nurdles, have been found on most of Jersey's beaches, along with the usual macro-plastic suspects of plastic bottles, bottle tops, plastic bags, single use cups, lids & stirrers, straws, cotton bud sticks, fishing ropes and lines, polystyrene from food trays and the ever-present cigarette butts.⁹

³ [University of Hawaii at Manoa. "Degrading plastics revealed as source of greenhouse gases." ScienceDaily. ScienceDaily, 1 August 2018.](https://www.sciencedaily.com/releases/2018/08/180801182009.htm)

[<www.sciencedaily.com/releases/2018/08/180801182009.htm>](http://www.sciencedaily.com/releases/2018/08/180801182009.htm)

⁴ rstb.royalsocietypublishing.org/content/364/1526/2153.short#sec-5

⁵ <https://www.medicalnewstoday.com/articles/221205.php>

⁶ www.who.int/foodsafety/areas_work/pops/en/

⁷ <https://sciencing.com/plastic-trash-affecting-ocean-food-chain-12143.html>

⁸ http://www.ramepbc.org/CPPC_Biobead_Pollution_on_our_Beaches_2nd_Edition_July_2018.pdf

⁹ <http://www.thegoodjerseylife.com/surf-sea-sand-and-plastic/>

ii. How effective would you say public awareness campaigns are in directly resulting in the reduction of single-use plastics? Is this enough or are there other initiatives that can be taken? If so, what are they?

Eight months ago, Blue Planet II shocked the world by exposing the destructive effect plastic pollution is having on our oceans. Up until that point there were many environmental groups trying to tackle the growing problem of plastics pollution, but Blue Planet II brought it to the forefront of the UK population. The programme was seen by up to 14million viewers. The so called 'Blue Planet' effect has seen an increased awareness and interest in environmental campaigns.

In the UK, Surfers Against Sewage launched their national Plastic Free Coastlines campaign, calling on people to unite against the growing impact that throwaway culture is having on our planet. Plastic Free Jersey was launched as part of this growing movement which is using communities to form part of the global shift away from damaging single-use plastics.¹⁰ Since the launch of the #PlasticFreeJersey campaign we have received commitment from 120 different groups (74 businesses & 46 home/personal), with ongoing discussion with many more, to take 3 actions against using single use plastics. Whilst we are delighted by the uptake in the campaign we recognize that this is only a small part of the population of Jersey. It is too early to say how much effect these public campaigns are having on the reduction of single-use plastics on an island-wide basis. Local environmental group Littlefeet Environmental have seen an increased interest this year, mainly from companies who are focussing on the environment as part of their Corporate Social Responsibility requirements.

Active initiatives in the UK, which aim to reduce single-use plastics, are [Surfers Against Sewage Plastic Free Communities](#), [Plastic free July](#), [National Geographic planet or plastic](#), [Sky Ocean Rescue](#), [Daily Mail turn the tide on plastic](#) to name but a few. Each initiative is working on raising awareness and helping to change consumer use and demand but there is no accountability to the consumers or businesses who continue to use single-use plastics, nor the manufacturer profiting from selling them.

Locally I would say that there is still a large amount of confusion about why we need to reduce our use of single-use plastics, and why more recycling isn't the answer to the pollution problem. I think that to materially reduce single use plastics there needs to be intervention from the government in the form of legislation against their use. The UK government have recently discussed introducing a plastic tax, which will no doubt reduce use, as seen with the plastic bag levy, but it doesn't fully eradicate the ongoing pollution issue.¹¹

iii. What are your thoughts on the role businesses can play in the reductions of plastics?

Business have a key role to play in the reduction of plastics. By actively choosing not to purchase single-use items there will be less demand for those product types, and in response less will be manufactured.

There should be more accountability in relation to plastics used in the island environment (eg work should continue with the fishing industry to identify waste generated by fishing and ways of capturing it; the plastics/chemicals used in agriculture ensuring their use and disposal are managed

¹⁰ <https://www.sas.org.uk/plasticfreecoastlines/>

¹¹ <https://www.telegraph.co.uk/news/2018/08/17/tax-bad-plastic-expected-signed-government-boost-recycling/>

effectively; accountability and/or penalties for businesses who continue to use single-use, non-recyclable products despite having the knowledge of the detrimental environmental impacts; and the effects of non-recyclable waste in general for all aspects of our community.)

iv. What is your opinion of recycling plastics in Jersey? How effective is it?

Recycling saves energy, reduces raw material extraction and combats climate change. The vast majority of studies have found that recycling our rubbish is better for our environment than incinerating or landfilling it.¹²

Given that only half of the parishes provide kerb-side collection the islands over all recycling rates are fairly high at 31% (at end of 2016) with a target of 36% by end of 2018. That said, 33,943 tonnes of inert waste was recycled in 2016 which means that that 69% of the islands waste was incinerated, over 75,500 tonnes, producing 7% of the islands energy.¹³

In terms of plastic recycling, Jersey recycles plastic bottles only as these are high quality plastics that can be recycled more efficiently than the many other types of plastic which are difficult to recycle or are not even recyclable. However, a large number of plastics bottles are still being incinerated in general waste instead of being recycled.

In order to increase recycling rates each parish which does not currently offering kerb-side recycling should take it to their parish assembly for immediate consideration.

Additional ways of increasing recycling rates are to target non-recyclers and educate the community.¹⁴

However, we should note that recycling is not the answer to plastic pollution. Increasing recycling of other types of single-use plastics (other than bottles) does not decrease their use - and low quality plastics used in food packaging are usually difficult to recycle or non-recyclable. Firstly, we need to reduce our dependence on single use plastics. The old adage of Reduce, Reuse and then Recycle still stands. According to Wachloholz¹⁵, we cannot recycle our way out of the plastic pollution wave because we are using too much plastic in the first place. Most recycling doesn't separate the different plastics from each other, which makes the process less efficient. We need to simplify the variety of plastics that are available on the market. If consumption was reduced that would make it economically viable to look at establishing a more effective collection-sorting-recycling process that focus on individual plastics rather than grouping them all together.

We should also note that as people move away from single-use plastics in most cases they are moving to another single use item – plant-based plastics. Whilst these are less toxic to the environment they are still single use. Most can be composted in a commercial composter – if the resulting compost was then used in growing the raw material once more, this would be a good example of a closed loop system. However, there are no commercial composting facilities in Jersey and as such the move to plant-based alternatives is still single use with the resulting waste being incinerated.

¹² https://friendsoftheearth.uk/sites/default/files/downloads/recycling_collections.pdf

¹³ <https://www.gov.je/Government/JerseyInFigures/Environment/pages/wastemanagement.aspx>

¹⁴ <http://blog.bigbelly.com/14-ways-to-improve-community-recycling-rates>

¹⁵ <http://www.euronews.com/2018/04/19/why-recycling-is-not-the-answer-for-fighting-the-plastic-pollution-problem>

v. What else could Jersey be doing? Are you aware of any plastic reduction initiatives from around the world that Jersey could learn from?

Jersey as an island, and the island businesses, should strive for a low-carbon circular economy. Building on the Juncker Commission and the commitment “to have all plastic packaging reusable or recyclable in a cost-effective manner by 2030” there is a new EU-wide strategy on plastics that will tackle the issue head on and Jersey should strive to be part of the solution.¹⁶

The circular economy is gaining growing attention as a potential way for our society to increase prosperity, while reducing demands on finite raw materials and minimizing negative externalities.¹⁷

5 Gyres have released their BAN List (Better Alternatives Now) which is an analysis and call-to-action to phase out the most polluting plastic products used. Although US focused the data stands for the global community.

Jersey could follow the lead of the French and UK government by banning the most polluting plastics and creating a focus of best practice for the island. Many governments around the globe have taken serious strides in the race against plastic and the island would benefit from the same, strong stance.¹⁸ For instance, the Indian government have recently made an ‘unprecedented’ pledge to ban all single use plastic by 2022, a move welcomed by the United Nations.¹⁹

One short-term, quick win would be the installation of water fountains or setting up refill points for drinking water to reduce plastic bottle use, as has been planned by the Mayor of London.²⁰

Another project worth investigating is the installation of nets to capture plastic pollution at waste water sources. This will not reduce the use of single-use plastics, but will at least capture some pollution waste before it goes into the ocean. Whilst there may be issues of emptying these on the soft sand, and back wash from tides, it would be interesting at least to trial one even as an education tool for the volume of pollution from these sources.²¹

Wastewater and drinking water treatment plants are important barriers in the life-cycle of nanoparticles in the environment, but water treatment plants are not currently designed for the removal of microplastics or nanoparticles. The government should keep abreast of research in this area for the new water treatment plant and for the benefit of islanders health.

The UK government have backed a deposit return scheme for plastic bottles and cans. Whilst this would increase recycling rates it does not address the issue of over-consumption of single-use plastics in the first place, and in fact would actively encourage, rather than discourage, their use.²²

¹⁶ https://ec.europa.eu/commission/sites/beta-political/files/plastics-factsheet-challenges-opportunities_en.pdf

¹⁷ http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf

¹⁸ <https://www.globalcitizen.org/en/content/plastic-bans-around-the-world/>

¹⁹ <https://www.independent.co.uk/news/world/asia/india-plastic-ban-2022-single-use-narendra-modi-world-environment-day-a8385966.html>

²⁰ <https://www.theguardian.com/environment/2018/jan/23/new-fountains-and-bottle-refill-points-to-tackle-londons-plastic-waste>

²¹ <https://www.waterworld.com/articles/wwi/print/volume-25/issue-4/editorial-focus/stormwater-management/stopping-litter-pollution-getting-carried-away.html>

²² <https://www.theguardian.com/environment/2018/mar/27/bottle-and-can-deposit-return-scheme-gets-green-light-in-england>

One amazing initiative for Jersey would be to find a way of promoting local produce, plastic free, over imported alternatives. In that way we are boosting the local economy, fishing and farming, and encouraging islanders to support local businesses over national chains which are selling overly packaged products with no accountability for how our island community has to then deal with that unnecessary waste.

In conclusion, plastics offer so many benefits for the future, but our current methods of producing plastic, and our use and methods of disposal are not sustainable, and they have major concerns for wildlife and human health.

Yours sincerely

Sheena Brockie

For and on behalf of the #plasticfreejersey campaign

Some additional facts²³:

- Nearly half of all plastics ever manufactured has been made since 2000
- Some 18 billion pounds of plastic flows into the oceans every year from coastal regions
- 40% of plastic produced is packaging, used just once and then discarded.
- Half the world's plastics are made in Asia, China making the lion's share of that
- Less than a fifth of all plastic is recycled globally

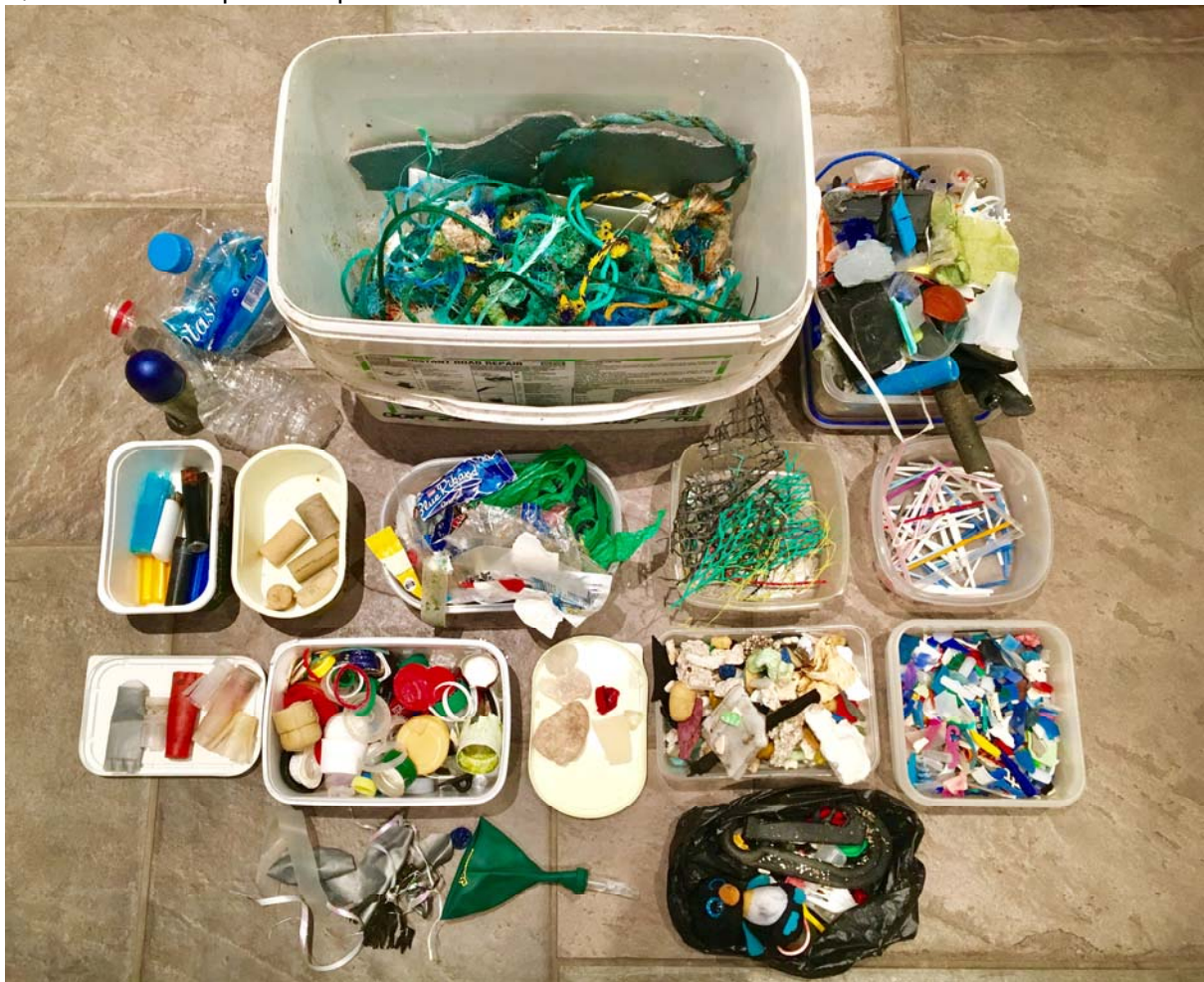
²³ <https://news.nationalgeographic.com/2018/05/plastics-facts-infographics-ocean-pollution/>

Examples of Plastic Pollution locally in Jersey

Microplastic, nurdles and bio-beads at Ouaisne



1,630 individual piece of plastic collected from a 700m stretch of beach at La Mare



Fishing rope and plastic bottles at Noirmont (Photo: Ross Garrard)



Fishing rope, pot cables and buoys from Ile Agois (Photo: Colin Gully)



Discarded cable ties at La Columberie



An old printers tray used to showcase the array of plastics found locally

