

Youth vaping: call for evidence

June 2023

Wildlife and Countryside Link (Link) is the largest environment and wildlife coalition in England, bringing together 72 organisations to use their strong joint voice for the protection of nature. See <https://www.wcl.org.uk/about.asp> This response is supported by the following Link members:

- A Rocha
- Environmental Investigation Agency
- Marine Conservation Society
- Surfers Against Sewage
- Whale and Dolphin Conservation

Introduction

As vape usage has surged over recent years, the environmental harm of vapes has become clear, leading to the environment sector supporting a ban on polluting disposable vapes. These items are now ubiquitous; for sale on every high street, used by millions on a daily basis, and increasingly now found littered in the natural environment.

Yet despite the growing evidence of harm caused by disposable vapes, Ministers have resisted calls for a ban.¹ While Government action stalls, 95% of the public feel that their local environment being clean and litter free is important but only 58% of people are currently satisfied this is the case,² and the UK is on track to become the largest producer of e-waste per capita in Europe.³

While we welcome that this Call for Evidence is being undertaken, we would urge policymakers across Government to consider the Government's Environmental Principles, two of which are particularly relevant in relation to vapes.⁴ These include:

¹ <https://hansard.parliament.uk/Commons/2022-11-29/debates/8E8521A9-2990-4F8C-BE71-CD21636DD400/DisposableVapesEnvironmentalImpact?highlight=vapes%20elf#contribution-E0EC56FD-6B7C-4B6A-9D15-9DFFA859F07A>

² Keep Britain Tidy, National Perceptions Survey, 2019 (unpublished), referenced in <https://www.keepbritaintidy.org/sites/default/files/resources/20200330%20KBT%20Litter%20Composition%20Report%20-%20FINAL.pdf>

³ <https://resource.co/article/uk-track-become-europe-s-biggest-e-waste-contributor>

⁴ <https://www.gov.uk/government/publications/environmental-principles-policy-statement/environmental-principles-policy-statement#fn:11>

- **The prevention principle** which “should promote policy design options that prevent environmental damage either before it has occurred (through policy design), or to contain existing damage. This can have economic benefits as it prevents additional costs and complexities that arise when environmental damage occurs.”
- The **precautionary principle** which “assists the decision-making process in the face of a lack of scientific certainty...The precautionary principle is applicable where there is plausible evidence of a risk that a particular policy could cause serious or irreversible damage to the environment, alongside a lack of scientific certainty about the likelihood or severity of this damage.”

Given that Waste Minister Rebecca Pow MP recently acknowledged that “there is an obvious consensus that disposable vapes - and what they may break down into - represent a genuine threat and risk to our environment”⁵, it is clear that there is a case for ban on disposable vapes if these principles are adhered to.

The environmental harm of environmental vapes includes, but is not limited to:

- Litter in our towns, cities and natural environment
- Harm to animals and pets
- Wasted valuable resources, such as lithium, which are key for the green transition.
- Fires in material processing facilities, costing Local Authorities money and disrupting the recycling system.

The exact harm in each of these areas is still an emerging issue where more evidence is revealed almost every week. Further, the scale of harm caused by disposable vapes is growing month on month as vape sales increase. We cannot wait until years of evidence gathering have taken place to tackle these items; the prevention principle and the precautionary principle must guide action in this area.

The most pertinent fact to this debate is that about 138 million single-use vapes are now sold in the UK each year and over half are thrown away.⁶ (The calculations for vape sales have been produced by Material Focus and the Financial Times based on data from EuroMonitor and ECigIntelligence official sales figures). There is no debate over the fact that there will be environmental harms from tens of millions of small electrical items entering the natural environment and improper waste streams each year.

⁵ <https://hansard.parliament.uk/Commons/2022-11-29/debates/8E8521A9-2990-4F8C-BE71-CD21636DD400/DisposableVapesEnvironmentalImpact?highlight=vapes%20elf#contribution-24F5D332-4194-40AF-9ECE-204CA451C430>

⁶ <https://www.materialfocus.org.uk/press-releases/one-million-single-use-vapes-thrown-away-every-week-contributing-to-the-growing-e-waste-challenge-in-the-uk/>

What evidence is there of the impact of disposable vapes on the natural environment when they are discarded?

These items are being found littered across the country. The Marine Conservation Society have reported that disposable vapes are being found littered on beaches around the UK by their beach clean volunteers. Because these products are made up of potentially hazardous materials, they warn that they pose a threat to marine life when littered.⁷

Further evidence of the litter harm was identified by Laura Young, a climate campaigner and PhD student based in Dundee, who recently found 55 disposable vapes in the space of an hour as she walked through the city, see right.⁸



With increasing levels of vape consumption there is also a greater possibility of harm to wild animals and pets if vapes are chewed or ingested. There have been reports of a bird dying after ingesting a vape⁹ and a puppy having died after eating a vape pod.¹⁰ The Veterinary Poisons Information Service (VPIS) warn that “*e-cigarettes and their refills contain high doses of nicotine (up to 36 mg per ml). Severe toxicity is uncommon, but could occur if the dose ingested is large. Many animals remain asymptomatic or develop only mild effects; common signs are vomiting, hypersalivation, diarrhoea and tachycardia. Throat irritation may also occur. In addition to the toxicity of nicotine, the actual e-cigarette casing can result in oral injury when chewed, and can cause gastrointestinal upset with the risk of a foreign body obstruction.*” VPIS have had around 700 enquiries relating to all kinds of vapes since 2017, see Table 1. Harm to wild animals will be largely unreported, although the RSPCA received 10,483 calls between 2020-22 across the country to incidents involving litter and have highlighted vapes as a growing threat to wildlife when mistaken as food.¹¹

⁷ <https://www.edie.net/ban-disposable-vapes-to-prevent-plastic-and-battery-waste-mountain-health-and-environment-groups-urge-ministers/>

⁸ <https://www.thenational.scot/news/23238477.call-scottish-government-ban-use-disposable-vapes/>

⁹ <https://www.stuff.co.nz/dominion-post/news/wellington/125314244/bird-dies-at-wellington-zoo-after-swallowing-vape-pen-xrays-show>

¹⁰ <https://metro.co.uk/2019/09/22/grieving-owner-says-puppy-died-eating-teenagers-juul-vape-pod-10787781/>

¹¹ <https://www.wcl.org.uk/celebrating-small-freshwater-bodies-as-part-of-amphibian-week.asp>

Table 1: Enquiries to the Veterinary Poisons Information Service relating to vape liquid products and electronic cigarette products in pets

Year	Number of enquiries
2017	88
2018	112
2019	106
2020	86
2021	147
2022	141

Data provided by VPIS to Wildlife and Countryside Link - February 2023: the majority of calls related to dogs (96%), around 3% were exposures in cats, 4 were in birds, 1 in a pony, and 1 in a ferret. Of these calls VPIS have full follow up on 172 cases and of these cases there were 2 fatalities (a cat and a dog), with the other animals either remaining well or making a full recovery.

What evidence is there of the impact of disposable vapes during their manufacture or use?

Disposable vapes are electrical items which contain valuable resources. With over 1m vapes going to incineration or landfill every week in the UK, this represents a huge loss of useful materials which will never be recovered. In addition to materials which include metal, plastic and a heating coil, every disposable vape has a battery which contains 0.15g of lithium, a material vital for the green transition. This means at least 10 tonnes of lithium end up wasted each year through discarded vapes; enough to power 1200 electric car batteries.¹²

If any impact has been identified how does that compare with the impacts of reusable vaping products?

¹² <https://www.materialfocus.org.uk/press-releases/one-million-single-use-vapes-thrown-away-every-week-contributing-to-the-growing-e-waste-challenge-in-the-uk/>

Reusable vaping products are more sustainable than those intended to be disposed of after a short usage, particularly when considering the battery element and the impact on litter. Despite this, trends are going in the wrong direction for sustainability; for teenagers aged 11-17, there has been a seven-fold increase in those favouring disposables over reusables.¹³

What evidence is there of effective measures to reduce the environmental impact of disposable vapes?

The Government must accept that disposable vapes are fundamentally flawed in their design and inherently unsustainable products, meaning an outright ban will prove more effective than attempts to recycle more vapes. While we support efforts to increase the recycling of disposable vapes, it is currently inconvenient to do so¹⁴ and consumer habits may prove hard to shift away from the current approach of quick disposal.¹⁵

Given the attention on this issue, it is likely vape producers and retailers will ramp up efforts to provide take-back and recycling options for the public in an effort to distract from the calls for a ban. We are aware that a major waste management business will shortly be launching a vape recycling service but apparently with no requirement to evidence how much is being collected. Initiatives which deliver uncertain benefits cannot distract from the need to ban disposable vapes.

As more of these products are sold, it will hinder the UK's already poor record on e-waste. Indeed, the UK is set to become the biggest e-waste producer in Europe per capita by 2024.¹⁶

Are there any potential unintended consequences to the measures you have suggested?

We don't want to see a situation where a ban on disposable vapes leads to reusable vapes being sold to look like disposable vapes. This could lead to consumers disposing of reusables in the manner as disposables. There is also a risk of disposable vape manufacturers promoting larger disposable vapes which last longer in an attempt to claim

¹³ <https://ash.org.uk/uploads/Use-of-e-cigarettes-among-young-people-in-Great-Britain-2022.pdf?v=1661866458>

¹⁴ For an example, see <https://www.theguardian.com/commentisfree/2023/may/03/recycle-disposable-vape-single-use-e-cigarettes-lithium>

¹⁵ 33% of all vapes get thrown away on average <https://www.materialfocus.org.uk/press-releases/one-million-single-use-vapes-thrown-away-every-week-contributing-to-the-growing-e-waste-challenge-in-the-uk/>

¹⁶ <https://resource.co/article/uk-track-become-europe-s-biggest-e-waste-contributor>

greater sustainability. This however risks these vapes using more materials and leading to more nicotine leakage when disposed of, potentially causing greater harm to wildlife.

Is there any other evidence on the impact of the environmental harm caused by disposable or other vaping related products that the government should be aware of?

To recover the materials contained in disposable vapes, it is important that they are recycled. However, the difficulty of recycling these items demonstrates the need for an outright ban. Indeed, there is currently very little capacity to recycle disposable vapes in the UK. Where options exist to recycle, firms find the process difficult and expensive.¹⁷ Because disposable vapes contain small amounts of e-liquid that contains nicotine, recycling facilities must ensure that staff are not exposed to the substance.¹⁸ Further, the lithium-ion batteries in vapes can ignite when punctured, contributing to an ever increasing number of fires in waste and recycling plants, with warnings that staff could be “seriously injured or even killed” according to the British Metals Recycling Association.¹⁹

It has been noted that the UK is “holding an awkward pose”²⁰ in relation to vapes, with efforts to tackle youth vaping contrasting with the promotion of vapes in the ‘swap to stop’ scheme. It is vital that health policy is designed with environmental considerations in mind, with any promotion of vapes focusing on reusables rather than disposables.

¹⁷ <https://www.itv.com/news/2022-11-14/where-do-disposable-vapes-end-up-when-theyre-thrown-away>

¹⁸ <https://www.itv.com/news/2022-11-14/where-do-disposable-vapes-end-up-when-theyre-thrown-away>

¹⁹ <https://www.letsrecycle.com/news/bmra-calls-for-ban-on-batteries-in-household-hins/>

²⁰ <https://www.theguardian.com/society/2023/may/17/vaping-boom-and-bust-from-bans-to-starter-kits-how-the-world-is-responding>