

Westminster Hall Debate - Wildlife and Countryside Link briefing

That this House has considered the environmental impact of disposable vapes

Tuesday 29th November – 4.30pm

Executive Summary

Disposable vapes are a significant and growing environmental problem with research suggesting 1.3m are thrown away every week. This has negative impacts on the environment which include:

- **Litter:** disposable vapes are increasing being found littered on our streets and in the natural environment, with negative impacts for communities, pets and wildlife.
- **Wasted resources:** Research suggests that discarded disposable vapes result in 10 tonnes of lithium ending up wasted each year, enough to power 1200 electric car batteries.
- **Hard to recycle:** only a small proportion of disposable vapes are recycled. By their nature as electronics, they are difficult items to recycle and consumers have few convenient locations for disposing used vapes.

Disposable vapes are fundamentally flawed in their design and are inherently unsustainable products. Further, multiple health professionals have warned that, instead of helping existing smokers to give up the habit, they are creating a new generation addicted to nicotine. Before the environmental and social harm grows further, the Government must take the initiative and ban disposable vapes.

Background

The use of vapes has surged over recent years. 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. Research suggests that half a billion vapes are now purchased every year, with almost a fifth of UK adults having bought a vape which is either single-use (disposable), rechargeable, or rechargeable with a single-use chamber.¹

Research by Material Focus has found that 37% of people who purchased vapes in the last year bought a disposable vape, a figure that rises to 52% for 18-34 year olds.² Indeed, research has found a more than a seven-fold increase in the proportion of 11 to 17-year-olds in the UK using disposable vapes since 2021.³ Material Focus claim that at least 1.3m disposable vapes are thrown away every week, equating to two vapes every second, with around 1m not recycled.⁴

This significant and growing environmental problem comes against a backdrop of Government inaction on waste. Last week the Environmental Audit Committee Chair agreed with the claim that “delay is at risk of becoming the default culture in Defra”, highlighting that the Environment Act targets, Extended Producer Responsibility for textiles, fishing gear and packaging, and the Deposit Return Scheme in England are all behind schedule. Further, last week marked a year of inaction since

¹ <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/>

² <https://www.materialfocus.org.uk/>

³ <https://ash.org.uk/uploads/Use-of-e-cigarettes-among-young-people-in-Great-Britain-2022.pdf?v=1661866458>

⁴ <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/>

the Government opened consultations on bans of plastic plates and cutlery⁵ alongside a call for evidence on a wider suite of items which could face restrictions, including action on tobacco filters.⁶

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,⁷ and the UK is on track to become the largest producer of e-waste per capita in Europe.⁸

The Environmental case against disposable vapes:

1. Wasted valuable resources

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 including metal, plastic and a heating coil, every disposable vape has a battery which contains 0.15g of lithium. This means at least 10 tonnes of lithium end up wasted each year through discarded vapes; enough to power 1200 electric car batteries.⁹

2. Litter and harm to wild animals and pets

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.¹⁰

With increasing levels of vape consumption there is also a greater possibility of harm to wild animals and pets if vapes are chewed on or ingested. There have been reports of a bird dying after ingesting a vape¹¹ and a puppy having died after eating a vape pod.¹² The Veterinary Poisons Information Service have previously found that 113 pets were poisoned after biting or chewing vapes or their refills in 2017.¹³ They 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*

⁵ <https://consult.defra.gov.uk/environmental-quality/consultation-on-proposals-to-ban-commonly-littered/>

⁶ <https://consult.defra.gov.uk/environmental-quality/call-for-evidence-on-commonly-littered-and-problem/>

⁷ 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>

⁸ <https://resource.co/article/uk-track-become-europe-s-biggest-e-waste-contributor>

⁹ <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/>

¹⁰ <https://www.edie.net/ban-disposable-vapes-to-prevent-plastic-and-battery-waste-mountain-health-and-environment-groups-urge-ministers/>

¹¹ <https://www.stuff.co.nz/dominion-post/news/wellington/125314244/bird-dies-at-wellington-zoo-after-swallowing-vape-pen-x-rays-show>

¹² <https://metro.co.uk/2019/09/22/grieving-owner-says-puppy-died-eating-teenagers-juul-vape-pod-10787781/>

¹³ <https://www.manchestereveningnews.co.uk/news/greater-manchester-news/e-cigarette-could-kill-your-13528731>

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."

3. Difficulty of recycling

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.¹⁴ Because disposable vapes contain small amounts of e-liquid that contains nicotine, recycling facilities must ensure that staff are not exposed to the substance.¹⁵ Further, with the risk that disposable vapes will be placed in the wrong bins, there is a concerning risk of fire and environmental hazard to waste management staff who are not expecting them in the waste stream.

Recycling disposable vapes is currently inconvenient, with poor information on packaging and limited locations for consumers to deposit their vapes. These devices are classed as Waste Electrical and Electronic Equipment (WEEE) which means they can't generally be recycled at the kerbside. Material Focus provide the closest drop off locations with their 'Recycle your Electricals' tool.¹⁶ Many drop off locations are located at Household Waste Recycling Centres on the outskirts of towns and cities, making them inconvenient for many. For example, a resident of central Norwich would currently face a 1h 40 round-trip to recycle their vape.

Recycling points for disposable vapes are currently inconvenient		
Location (city centre)	Distance to nearest drop off point (miles)	Travel time by public transport (minutes)
Bristol	0.52	13 (walk)
Cardiff	1.24	21
Glasgow	1.87	26
London	1.71	26
Norwich	1.78	51
Sheffield	2.1	38
Drop off location for 'vape': https://www.recycleyourelectricals.org.uk/electrical-recycling-near-me One way travel time data from City Centre (main railway station): Google Maps		

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

¹⁵ <https://www.itv.com/news/2022-11-14/where-do-disposable-vapes-end-up-when-theyre-thrown-away>

¹⁶ See <https://www.recycleyourelectricals.org.uk/electrical-recycling-near-me>

Recommended action

We strongly urge the Government to ban disposable vapes. Through the Environmental Protection Act 1990, the Government has the power to ban 'injurious substances' that damage the environment or harm human health.¹⁷ A ban can on disposable vapes can therefore be achieved using these powers, as was the case with bans on plastic straws and other single-use items. Defra's call for evidence on commonly littered and problematic plastics last year included traditional tobacco filters, but the growing threat of disposable vapes was overlooked.¹⁸

Decisive action from the UK Government now could prevent this emerging environmental problem from becoming a major issue, and head off a health crisis among young people. This decision would not hinder people who choose to use vapes to quit smoking, as reusable vapes are readily available

Wildlife and Countryside Link (Link) is the largest environment and wildlife coalition in England, bringing together 67 organisations to use their strong joint voice for the protection of nature. See <https://www.wcl.org.uk/about.asp>

For questions or further information please contact Matthew Dawson, Resources and Waste Policy Officer, Wildlife and Countryside Link E: matthew@wcl.org.uk

¹⁷ <https://www.legislation.gov.uk/ukpga/1990/43/section/140>

¹⁸ See <https://consult.defra.gov.uk/environmental-quality/call-for-evidence-on-commonly-littered-and-problem/>