

State of Our Trails Report 2024: Deposit Return Scheme Special Edition

TRASH <FREE> TRAILS



Introduction:

Where Policy Meets The Trail

The Government estimates that 31 billion single-use plastic, glass and aluminium drinks containers are used in the UK every year. Less than 70% of them are recycled, with 9.3 billion landfilled, incinerated or polluting the environment.

In 2023 we outlined our ambition to create a Trash Free Future; to do so we need 'No Brainer Policy Change'. Key to this is the reuse and recycling of drinks cans and bottles. A Deposit Return Scheme (DRS) would see a small deposit added to the price of eligible drinks purchases. Once the container is returned to a collection point the deposit is repaid.

This is a simple but game-changing policy. Globally, over 40 countries have already successfully adopted their own DRS, with the best designed systems seeing return rates of up to 98%.

The economic gains are also striking. A DRS could create 3-4,000 new green jobs, generating a net

present value of £3.58 to £5.88 billion, while leaving the taxpayer unburdened having been funded by drinks producers. Even before outlining the environmental and social benefits, a DRS offers significant advantages. Despite this, and over a decade since it was first discussed in parliament, the UK's DRS remains delayed until October 2027, and will not include glass.

As a community, Trash Free Trails spend the majority of our time on trails and in wild places across the country. Time and again we come face to face with the impacts of this delay on the places we love. Our volunteers have found single-use drinks bottles and cans on 94% of the trails we've surveyed. DRS-eligible drinks containers make up 33% of the items of single-use pollution (SUP) we're finding — this policy could eradicate them from our trails, almost overnight.

That's 33% less trash in places it shouldn't be.

This Special Edition of the State of Our Trails Report is our perspective on DRS from the point of view of our trails, and the plants and animals calling them home. Our research has identified it as one of the most beneficial policies for our wild places and their wellbeing — we call it a 'No Brainer' for a reason. So there's only one question we're left asking: *what are we waiting for?*

Part One:

What's Out There?

The Prevalence, Distribution & Composition Of Single-Use Drinks Containers

The statistics tell us every time you visit the UK's trails and green spaces, you will encounter some form of single-use pollution (SUP). The very nature of that statement means most will be well aware of this reality. Despite this, there's a blind spot in the research; no one yet knows how much is actually out there and what it's composed of.

Through our Citizen Science-powered studies — Trash Counts and Trash Surveys — we're plugging this knowledge gap.

Trash Count

A Trash Count is the simplest and fastest way for our volunteers to contribute. By focusing on a specific section of trail and simply counting the SUP along it, we can better understand how much is out there and exactly where it ends up.

We have measured an average of **42 items of SUP per kilometre**. As many as **14** of those items will be drinks containers; on average, **you can't walk 100m on a trail without seeing a discarded bottle or can**.

Trash Counts also help us identify hotspots in and around the trails. We've highlighted **car parks, visitor infrastructure, parks, playgrounds and bike jumps** as notable locations for drinks containers to be discarded.

Trash Survey

Removing the SUP and analysing it using our Trash Survey is the most valuable contribution a volunteer can make. This not only provides us with a detailed picture of what's out there, but deepens our understanding of its impacts.

Thanks to Trash Surveys we can isolate the single-use pollution found into categories, reflecting types, materials and brands.

For instance, **3.4%** of the 9.2 million items of SUP on trails and public rights of way are glass bottles. This is a significant portion — reflecting **potentially over 300,000 individual bottles** — and compelling evidence that glass must be included in the UK's DRS.

Case Study:

Barry Sidings Countryside Park, South Wales

The Barry Sidings Countryside Park is a popular spot for the riders and roamers of South Wales, with 3.5 hectares of trails, lakes and pump tracks to explore. With the support of local TFT A-TEAMer Leon Rosser, it's also an established Community Hub based out of the Barry Sidings cafe.

Despite this there are high levels of SUP present, with a shocking **549 items per km** recorded here in October 2021. **36%** of this SUP was eligible for DRS; above our national average.

As we gain more and more detail on the scale of terrestrial pollution, we're becoming increasingly aware of the significant disparities in experience of SUP relating to geographic, social and economic factors. A DRS must be equitable and accessible across the UK, supporting communities who are significantly more affected by single-use pollution to be proactive participants in its solution.

Part Two: This Mouse Wouldn't Have Died With A Working DRS: Environmental Impacts Of Single-Use Drinks Containers

While there's little uncertainty of the scale of our single-use pollution problem, there's very little data concerning the actual impacts these items are having on our trail ecosystems – notably on plants and animals. Alongside a paucity of data, there are also no standardised methods for measuring and monitoring the impacts of single-use pollution (SUP).

Over the last five years we've worked with our community and partners to develop and trial our own methods, matching these with those used by other organisations across the world. Here we outline some of our initial findings on the impacts of drinks containers.

Floral Growth and Species Diversity

SUP takes up precious space on the forest floor, leaving less available for flora to grow and thrive. To grapple with the substantive quantity of SUP on our trails is to confront a hard reality: **its presence is ousting and suffocating the plants on our trails.**

To better understand the nature of this displacement, this year we gained permission from Natural Resources Wales to establish experimental plots in three Welsh forests, each one containing types of SUP, to monitor its influence on flora over time.

Consistently we have found **bleached foliage and abnormally dry conditions** around glass and plastic bottles; the latter sees us raise concerns for the potential of forest fire ignition, particularly in a time of rising temperatures.

Nature's resilience is present too, with examples of plants growing around and even through drinks containers. We continue to engage our volunteer Citizen Scientists in monitoring studies, called Trash Watch, to better understand over a longer period how drinks containers interact with and influence plants.

Animal Interaction and Mortality

Through land development and human expansion, Britain's animals already face a battle for space. With persistent habitat loss, they're pushed to the fringes of the green spaces they call home. And when those ecosystems are too filled with SUP, what's the impact on its animals?

30% of surveys reported signs of animal interaction with SUP. 18% of these were identified as chew marks and holes, while 4% reported signs of nesting and inhabiting the remains of SUP.

A shocking 8% of Trash Surveys reported signs of at least one animal death due to interaction with SUP. This means **for every 100 trail cleans our community complete, almost 10 will find instances of animal mortality in the face of SUP.**

Animals found dead in drinks containers include keystone mammal species such as voles, mice and shrews. Two notable instances involved glass bottles, with volunteers in Eryri (Snowdonia) finding an **endangered bank vole** inside a Peroni Beer bottle in Beddgelert Forest, and others in the Lake District finding a mother mouse in a Corona bottle on Brown Howe, **alongside her litter of babies.**

We're receiving Trash Surveys from our volunteers everyday that report signs of animal interaction; these select anecdotes highlight how invaluable a DRS that includes glass as well as plastic and aluminium containers would be for vulnerable mammals, and the consequences of its delay.

Part Three: Experiential Impacts: What Could A DRS Do For Our Connection To Nature?

The insights in the previous section should be compelling enough to encourage policy makers to act. But the hard reality is that to propel action, we must also demonstrate the impacts of littered drinks containers on the human population.

We invited members of our community to share their experiences of finding drinks containers in the places they love and frequent – from Scotland to the South Coast, their prevalence and persistence as an item of single-use pollution (SUP) is unparalleled.

Gill Houlsby

📍 *Helensburgh*

'I find it really frustrating that time and again I find discarded energy drink cans along my local trails. I feel compelled to pick them up; what starts out as a run frequently turns into a trail clean.'

'I don't know where the energy from these drinks goes, but I do know the containers remain in the environment long after. **This highlights a larger issue of corporate responsibility.** There is a glaring disconnect between the marketing of energy drink companies and their actual environmental impact. I'd like to see that change through producer responsibility.'

'I'm definitely in favour of Scotland implementing a Deposit Return Scheme as soon as possible! I would love to see more positivity and creativity from drinks manufacturers, politicians and consumers alike as to how **we can make this happen together.**'

Chloe Parker

📍 *Lake District*

'I find so many discarded cans and bottles on my local trails, especially energy drinks, and it's frustrating. These places are important, and **seeing them littered with waste feels like a violation.** It's disappointing that people can't take a moment to carry their trash out, but we know littering is a thoughtless act. We need more educational opportunities to change people's mindsets.'

'A Deposit Return Scheme could make a real difference here by encouraging people to learn about the impacts of single-use pollution and take responsibility. **If every can or bottle had value, it would be far less likely to end up on our trails.**'

Our volunteer Citizen Scientists have invested countless hours on the trails collecting valuable data. Entrusted to us, that data is vital in building a more detailed picture of the impacts our trash is having on these ecosystems and their residents, so we can better advocate for a fully-comprehensive and public-centred DRS.

To be truly effective, a DRS needs to be all-inclusive; processing aluminium cans, plastic and glass bottles. The story our data is telling shows that without the most ambitious DRS, our trails and the animals who inhabit them will continue to suffer.

Beyond the policy itself, the UK's DRS needs to be a collaborative effort between government, experts and researchers, community organisations like Trash Free Trails, and the general public. **The Scheme must be well communicated and driven by a nationwide educational programme** in the lead up to and after the introduction, empowering the public to participate and showing, fundamentally, the positive impact we can have when we work together.

When Trash Free Trails started five years ago, there was no scientific study to examine pollution across our wild places. Now the contributions of our community are steering our next steps as we take this information to government, and advocate for this transformational policy. We share this Edition with pride and in the hope that one day we will publish a final Report, **when pollution on our trails is a thing of the past.**

Part Four:

Our Environment Needs An All-In Scheme

When it comes to the implementation of a Deposit Return Scheme (DRS), **the UK Government continues to 'kick the can' further down the road.** In the meantime, single-use drinks containers continue to pollute our trails and tragically, as our data shows, **it's our ecosystems and the animals inhabiting them who are paying for it with their lives.**

References

DEFRA, (2024), 'Deposit Return Scheme for drinks containers: joint policy statement, GOV UK', Source: <https://www.gov.uk/government/publications/deposit-return-scheme-for-drinks-containers-policy-statements/deposit-return-scheme-for-drinks-containers-joint-policy-statement>

ReLoop, (2022), 'Global Deposit Book 2022: A Review of Global Deposit Return Systems for Single-Use Beverage Containers', Source: https://www.reloopplatform.org/wp-content/uploads/2022/11/RELOOP_Global_Deposit_Book_11I2022_P1.pdf

Keep Britain Tidy, (2024), 'Public Perceptions of a Deposit Return Scheme', Source: <https://www.keepbritaintidy.org/tidy-britain-appg/public-perceptions-of-a-deposit-return-scheme>

DEFRA (2021), 'Impact Assessment - Introducing a Deposit Return Scheme on beverage containers', Source: https://consult.defra.gov.uk/environment/consultation-on-introducing-a-drs/supporting_documents/Impact%20Assessment.pdf

State of Nature Partnership, (2023), 'The State of Nature Main Report', Source: https://stateofnature.org.uk/wp-content/uploads/2023/09/TP25999-State-of-Nature-main-report_2023_FULL-DOC-v12.pdf

Horton, A.A. et al, (2017), 'Microplastics in freshwater and terrestrial environments: Evaluating the current understanding to identify the knowledge gaps and future research priorities', Source: Science of The Total Environment, 586, pp. 127–141, doi: 10.1016/j.scitotenv.2017.01.190

Trash Free Trails, (2023), 'The State of Our Trails Report 2023', Source: https://www.trashfreetrails.org/files/ugd/e60ede_7b277a11844f411bb4822304860e9518.pdf

About The State Of Our Trails Report

This document is one of an annual series of Reports produced by Trash Free Trails, through their State of Our Trails (SoOT) Research Programme. Supported by Bosch eBike Systems and Bangor University, the Programme is a first of its kind study into the causes, prevalence, composition and impacts of single-use pollution (SUP) on recreational trail ecosystems.

Through the Research Programme, Trash Free Trails are:

- Establishing a better understanding of single-use pollution on recreational trail ecosystems.
- Developing and testing a methodological framework for future research.
- Enabling Citizen Scientists across the world to be equipped to survey, monitor and report insights about the SUP in places they love.
- Contributing to positive changes in policy, practice and culture, on a national and international scale.

Learn more about the Programme on the TFT website: <https://www.trashfreetrails.org/state-of-our-trails-report>

About Our Data - 'The Funnel'

Through the State of Our Trails Research Programme we are committed to scientific accuracy and transparency. Sharing methods is a core principle of the scientific process; it's also what will enable us to work together to achieve a Trash Free Future. We also believe everyone, everywhere, can produce robust data about single-use pollution on their trails. You can use our Citizen Science Toolkit to learn how.

The nature of Citizen Science means balancing multiple variables to achieve accuracy, and we believe in being transparent about how we've analysed our data. You can 'see our workings' on the TFT website: <https://www.trashfreetrails.org/state-of-our-trails-report>

To learn more about our research, drop us a line on hello@trashfreetrails.org

Written by

**Chris Hunt &
Rachel Coleman**

Designed by

Helen Wilson

Research and Analysis by

**Dom Ferris,
PJ Serrano &
Josh Hothersall**

Cover image by

**Joby Newson,
Sam Dugon &
Jan Bella**

Thank you to our Strategic Partners



X



Thank you to our Supported By partners

FUSION

Together The Trash Free Trails Community Have

Removed and Surveyed
285,554 Items of SUP

Weighing
4,624 Kg

Covering
6,793 Km

Achieved By
3,261 Volunteers

Top Brands



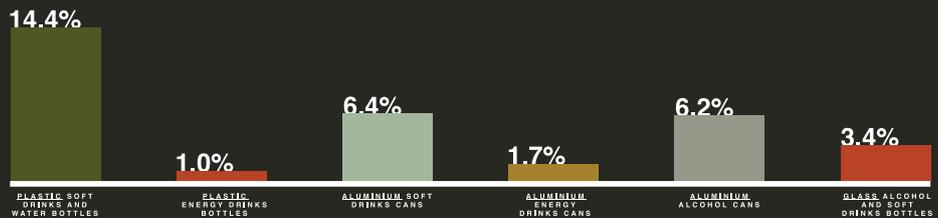
There is still up to 9.2 million items of single-use pollution on our trails

Laid end to end they would stretch further than the 970km from Lands End to John O'Groats



With a Deposit Return Scheme we could eradicate up to 33% of single-use pollution from our trails, overnight.

All DRS containers account for 33% of total single-use pollution surveyed



With a Deposit Return Scheme we would see:

14 less items of single-use pollution per kilometre



3 million items of single-use pollution on UK Public Rights of Way disappear overnight

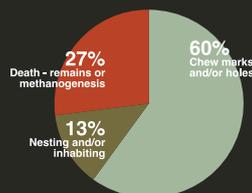
DRS-Eligible items

46 fewer single-use pollution items to remove per average trail clean



The Environmental Case for a Deposit Return Scheme

Single-use drinks containers cause foliage bleaching, and artificially dry forest floor conditions. This can lead to forest fires



30% of trail clean surveys found signs of animal interaction with single-use pollution

8% reported at least one animal death due to interaction with single-use pollution



This included the bodies of animals



Significant numbers of animals found dead in drinks containers are keystone mammal species

Endangered bank vole found in a Peroni bottle, Beddgelert Forest, Snowdonia



A mother mouse and her litter of babies found in a Corona bottle, Coniston, Lake District



Deliver this message in a bottle to your local representative

