

# Applying behavioural insights to improve the messaging around the new Countryside Code

## Summary

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Natural England Commissioned Report NECR386

# Applying behavioural insights to improve the messaging around the new Countryside Code: Summary

Dr Zac Baynham-Herd, Kristina Londakova, Dr Abergail Mottershaw, Jordan Whitwell-Mak and Elena Meyer zu  
Brickwedde



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## Keywords

Countryside Code, responsible recreation, behavioural insights, behaviour change, nudges, communications, message testing, littering, wildfires, paths, access, rights of way, social media

## Further information

This report can be downloaded from the Natural England Access to Evidence Catalogue: <http://publications.naturalengland.org.uk>. For information on Natural England publications contact the Natural England Enquiry Service on 0300 060 3900 or e-mail enquiries@naturalengland.org.uk.

# Foreword

Natural England commissions a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Natural England has a statutory duty to produce and promote the Countryside Code, which sets out the responsibilities that visitors and land managers have in relation to the countryside. In effect, the Code is a set of behavioural outcomes – the behaviours we want the public to adopt as they spend time in nature. In practice, it is the campaigns and promotion around the Code (i.e. how it is used) that support any attitude or behaviour change, and so it is important to understand how to communicate the messages contained within the Code effectively.

Due to resource constraints, it was necessary to limit the focus of this study to three behaviours: avoiding littering, adhering to fire safety guidelines, and keeping to paths. These behaviours were selected because they emerged as being considered particularly important by our stakeholders in a survey carried out in early 2021 (see ‘The Countryside Code: Stakeholder Survey – A summary of findings’, NERR095). The Behavioural Insights Team was commissioned to carry out an evidence review and an online message testing experiment, focusing on these three behaviours, to inform Natural England’s ongoing work to promote the Code and encourage the uptake of the behaviours contained within it.

# Applying behavioural insights to improve the messaging around the new Countryside Code

## Summary



THE  
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TEAM

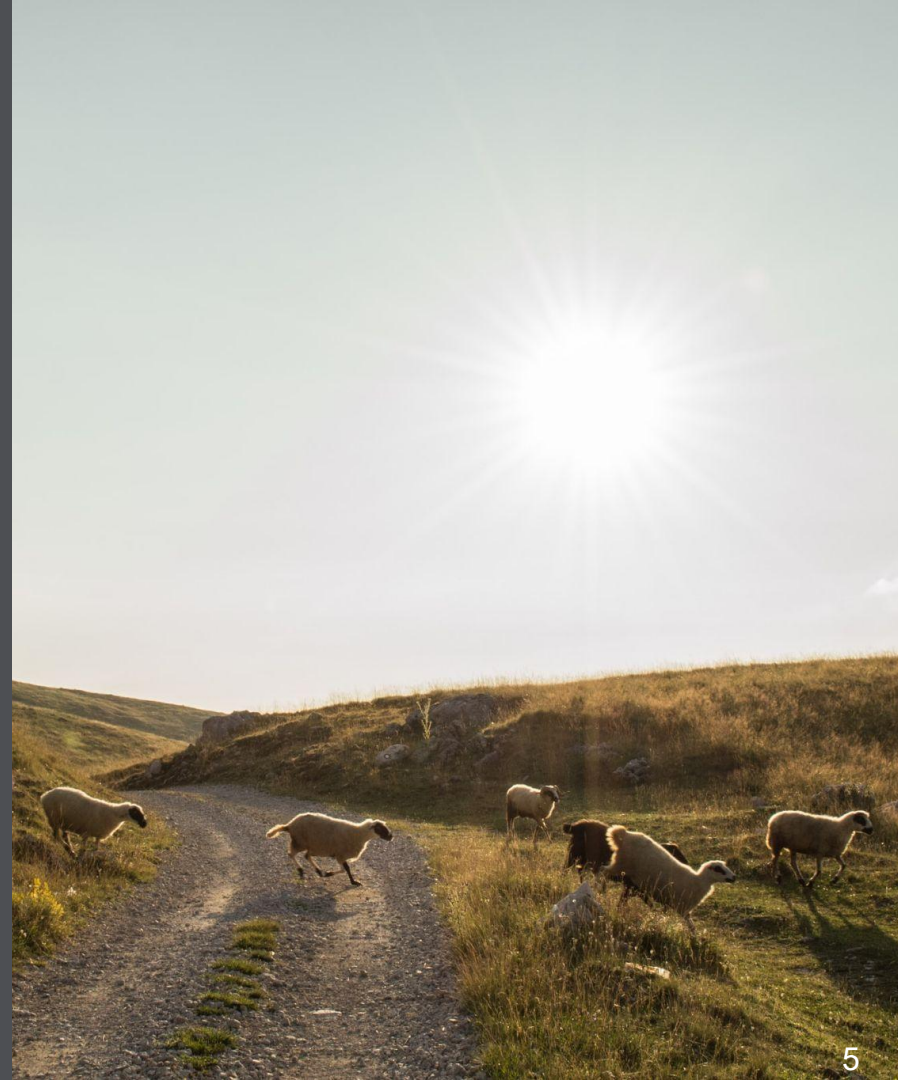
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# Context and relevance



In April 2021 the refreshed Countryside Code was launched by Natural England and Natural Resources Wales. It aims to ensure everybody is welcomed and encouraged to enjoy nature, whilst helping them do that in a way that “*protects and respects*” nature, other visitors, and those who own and manage the land they visit.

Natural England have worked closely alongside partners and stakeholders to update the Code’s content, language and tone to reflect what the public want and also meet the needs of farmers, site managers and others. Natural England are also launching a long-term Countryside Code communications campaign to increase awareness of the Code and encourage behavioural change amongst public audiences to act responsibly when visiting outdoors through 2021, and beyond.

As part of this work, Natural England engaged the Behavioural Insights Team to produce two pieces of research, which are summarised in this report:

- a) **A rapid evidence review** of the barriers and around enablers of responsible recreation behaviours
- b) **A message testing experiment** exploring the effects of different messaging around the Countryside Code

The three behaviours covered in particular include: **avoiding littering, adhering to fire safety guidelines, and keeping to the path.**



**The Countryside Code**

**NATURAL ENGLAND**

**The Countryside Code**  
RESPECT • PROTECT • ENJOY

Your guide to enjoying parks and waterways, coast and countryside

**Respect everyone**

- be considerate to those living in, working in and enjoying the countryside
- leave gates and property as you find them
- do not block access to gateways or driveways when parking
- be nice, say hello, share the space
- follow local signs and keep to marked paths unless wider access is available

**Protect the environment**

- take your litter home - leave no trace of your visit
- take care with BBQs and do not light fires
- always keep dogs under control and in sight
- dog poo - bag it and bin it - any public waste bin will do
- care for nature - do not cause damage or disturbance

**Enjoy the outdoors**

- check your route and local conditions
- plan your adventure - know what to expect and what you can do
- enjoy your visit, have fun, make a memory

**Stay safe**  
FOLLOW SOCIAL DISTANCING

[www.gov.uk/countryside-code](http://www.gov.uk/countryside-code)

# Contents

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<b>Rapid Evidence Review</b>	<b>8</b>
Executive summary	9
Methodology	12
Findings	14
Conclusions	26
Appendix 1: Designing effective communications	54



<b>Message Testing</b>	<b>28</b>
Executive summary	29
Recommendations	30
Experiment overview, findings and discussion	32

<b>References</b>	<b>50</b>
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# Behavioural insights for the Countryside Code

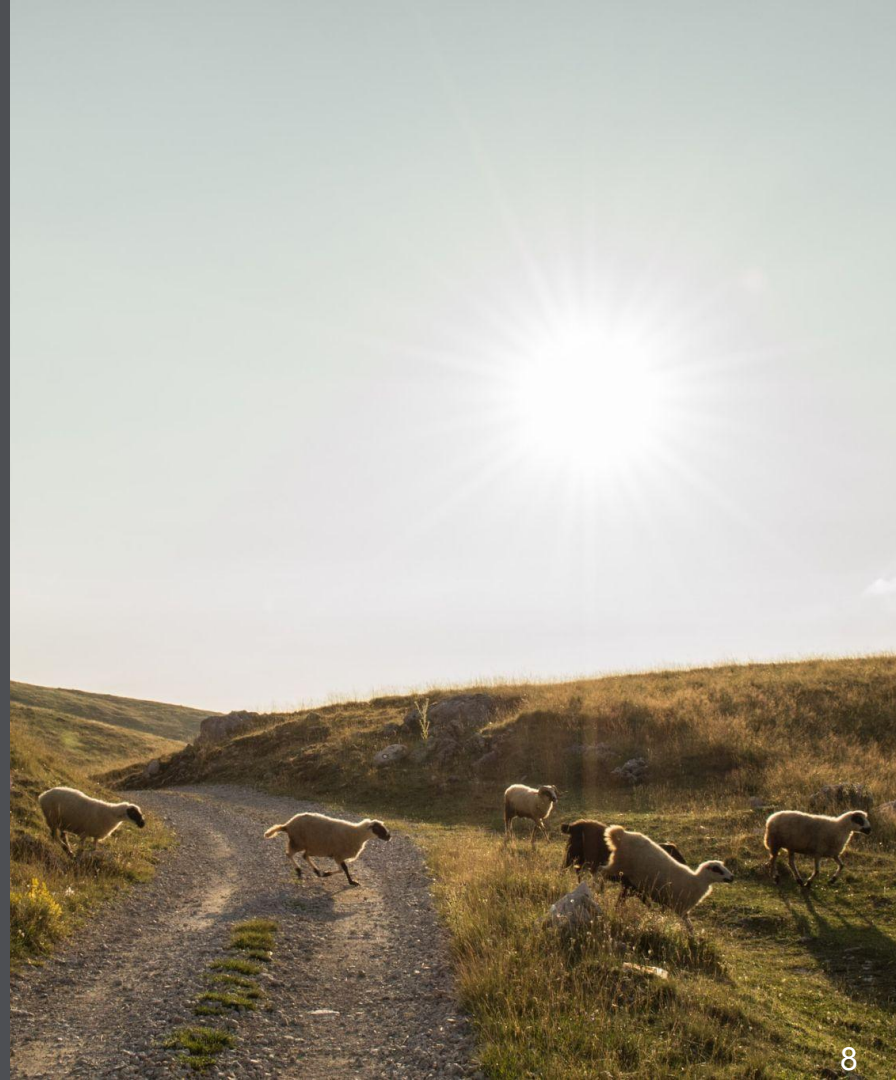
Rapid Evidence Review  
April 2021



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# Executive summary

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# What combination of barriers need to be addressed?

Using the COM-B framework ([Michie et al., 2011](#)) we suggest that either:



**1) There is a cognitive deficit** - many users of the countryside will not be aware of the negative impact of some of their behaviours, or indeed the relevant guidelines. This is much more likely to occur for requirements such as sticking to particular paths or lighting fires in designated areas rather than for littering - which is more widely discouraged.



**2) There is a convenience gap** - where guidelines are known, how easy it is to follow them (or to adopt alternatives) will determine levels of compliance. For example, prevalence of bins will dictate littering levels and the distance to alternative paths or BBQ sites will dictate compliance with guidelines for those activities.



**3) There is a motivation gap** - where adherence involves extra friction or individuals forgoing their preferences, adherence will be determined by how much individuals care about the consequences of their behaviours (either to themselves or to others/the environment). In particular, social pressure and fear of detection are likely to be strong motivators.

**The combined importance these key barriers will differ across behaviours.** For instance, for littering, where awareness is high, but enforcement and accountability is low, convenience will be highly important. In contrast, for adherence to local guidelines, such as for fire safety rules, awareness of local guidance (and the reasons why adherence is important) will be key.

# Different solutions for different behaviours



The most effective approaches will therefore depend on the target behaviour.



**For littering** - non-compliance is common, easily observable (e.g. seeing where others have littered) and hard to enforce. Threats and fear are likely to be less effective than appeals to social identity. Signage works best at source for pointing people to disposal sites. Social media (and traditional advertisement placement) is appropriate for wider social identity campaigns.



**For preventing fires and BBQs** - for one-off behaviours clear messages that focus on impacts and consequences are likely to be most effective. Wider social media based awareness campaigns would be best in seasonal windows and be highly targeted towards those more likely to visit green spaces. Dynamic traffic light systems might also work in some areas.



**For sticking to the path** - for many, walking behaviours are habitual, preference-based and likely perceived to be harmless. Clear timely messages which tell people not to stray from the path are likely to be most effective. These seem to be most effective when combined with positive social norms and at the site of a decisions - e.g. the head of a so-called 'social trail' (paths made by others) or at a natural junction.

# Methodology

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# We combined a rapid evidence review with a focus group



## Rapid evidence review

We reviewed\*:

Published reviews and individual articles on responsible recreation

Grey literature (from Natural England and partners)

Wider behavioural science literature (including BIT trials)



## Focus group

We also conducted one (60 min) focus group with a sample of 8 individuals using a professional research panel provider to include:

- An even split of frequent and infrequent users of the countryside
- Even gender split, 25% minority ethnic representation
- Mix of ages and geographical locations.

\*As a [rapid evidence review](#) (rather than a systematic review) we prioritised finding the most relevant literature rather than synthesising all available evidence. We used the pearl-growing technique ([Papaioannou et al. 2010](#)), which starts with known highly relevant reviews/studies and identifies additional studies via following citation-strings and searching for the keywords used in those studies (on Google Scholar) - such as "littering", or "recreation" and "behaviour" or "interventions" - until new material found becomes less relevant. No geographical or age limits were imposed on studies, though only studies published in English were reviewed and most of the grey literature reviewed was UK focussed.

# Findings: Barriers and enablers

# Why is this an issue?



Adherence to the Countryside Code requires improvement, but it is hard to measure. For instance, although only 4% of English recreation sites were recorded as 'not meeting the acceptable standard for litter' ([Keep Britain Tidy, 2018](#)), 30% of the English population perceive littering to be a problem in their area ([DEFRA, 2019](#)). Adherence can also become particularly important at certain times. For example, fire safety is most crucial when wildfire risk is highest, and wildlife disturbance can be particularly negative during nesting seasons.

From a behavioural perspective, there are numerous reasons why people may consciously choose not to comply with outdoor regulations or guidelines. For instance:



**Lack of a clear link** between awareness and the recreational behaviours which impact wildlife and natural environments ([Sterl et al., 2008](#)). In addition, there is often an environmental intention-action gap, whereby pro-environmental behaviours do not always follow from pro-environmental attitudes or values.



**Strong motivations to overcome.** For example, off-lead dog walking is often a primary reason for visiting natural areas, and many users of such spaces have a strong desire to maintain their relative freedom and independence, which makes achieving behaviour change difficult ([Eagles & McCool, 2002](#)). Walking off-trail is also often perceived as being the shorter route ([Goh 2019](#)).



**Fear of enforcement is low.** A meta-analysis of findings from 700 studies investigating deterrence concluded that the probability of sanctions has a greater deterrent effect than their severity ([Rupp, 2008](#)). This is a problem given that it appears England residents perceive the threat of enforcement for behaviours such as littering to be low. For example in 2011, 84% of Londoners thought it is likely that there will be no consequences to dropping litter in a public place ([Keep Britain Tidy, 2011](#)).

However, there are also numerous other barriers to responsible recreation behaviours which go beyond individuals' conscious decisions or intentions. To better understand these, we use the COM-B model of behaviour ([Michie et al., 2011](#)).

# There are wide-ranging barriers to responsible recreation



## Capability Barriers

**Lack of understanding:** users may be unaware of the consequences of their behaviours ([Sterl et al. 2008](#)) and not be familiar with the guidelines - such as where fires are allowed (focus group).

**Remembering:** users need to remember to bring waste bags with them when planning their visit (focus group).

**Finding alternatives:** users may not be aware of the best route to take once they realise they should not be going a certain way.

**Convenience:** users will take the routes which are easiest and be less likely to follow guidelines if they take more mental or physical effort ([Goh 2019](#)).



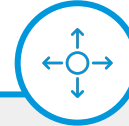
## Motivation Barriers

**Habits:** users may use natural areas frequently and have ingrained habits - e.g. follow the same (inappropriate) routes regularly.

**Preferences:** off-path walking is often the more highly desired option ([Eagles & McCool, 2002](#)), e.g. due to greater freedom, or to avoid others (focus group).

**Incentives:** low perceived positive ([Lawhon et al. 2013](#)) or negative consequences for compliance lowers intentions ([Rupp 2008](#)).

**Culture:** in some places cleaning litter is seen as less desirable or well-regarded than in others ([Ong & Sovacool 2012](#)).



## Opportunity Barriers

**Prompts:** lack of prompts in the environment with locally relevant information, such as fire safety signs ([Saunders et al. 2019](#)).

**Time requirements:** users often need to go further to find designated BBQ areas stick to path and to drop their waste in designated bins (focus group).

**Facilities:** greater the distance to (empty) bins, the higher likelihood of littering ([Al-Mosa et al. 2017](#)).

**The behaviours of others:** people follow others in their group, including when misbehaving (focus group).

**Social norms:** users often see other users breaking the rules (e.g. litter on the floor or off-path 'social trails') and this is perceived as implicit permission to do the same - 'broken windows effect' ([Lui et al. 2019](#)).





# What comms nudges work to reduce littering?

## Motivation



**Social norms:** Social norms interventions have been found to have a positive effect on both self-reported waste prevention behaviour ([Corsini et al. 2018](#)) and observed littering behaviours, both in laboratory settings and in the field ([de Kort et al. 2008](#)).



**Social undesirability:** [Australia Environmental Protection Agency's](#) 'Tosser' campaigns and the New South Wales 'If it's not in the Bin it's On You' campaigns have been associated with positive shifts in awareness of the impacts of littering, intentions and social undesirability).

**Social identity:** Tapping into pride and positive social identities can be a strong motivator. This was demonstrated in the famous '[Don't Mess with Texas](#)' campaign which is thought to have reduced highway litter by 72%. Similarly, the recent *Don't Mess With Croydon* campaign has been associated with a reduction in over 5000 incidents per year in the borough ([Ager & Lawrence, 2018](#)).



Do Not Mess With Texas road sign.  
A roadside sign from the famous 'don't mess with Texas' campaign.



# What comms nudges work to reduce littering?

## Motivation



**Feeling watched:** An experimental field study with University students found that the presence of images of eyes has a positive effect on reducing littering – in this case of the leaflets with the eye design on them, possibly because the 'eye' images heighten the feeling of being watched ([Bateson et al. 2013](#))



**Sanctions:** The Love Essex campaign combined pro-social slogans such as 'littering: it's not cool' with messaging highlighting the risk of being fined on posters, buses, fast-food packaging, and promotions on social media. Although not tested experimentally, it has been associated with a 66% drop in fast-food litter and a 41% drop in litter overall ([HMG Litter Strategy for England, 2017](#)).

## Awareness and ease



**Timely prompts:** Providing timely prompts at disposal locations has been associated with positive littering outcomes. This includes providing visual prompts above bins ([Sussman & Gifford, 2013](#)), publicly displayed banners ([Liu & Sibley 2004](#)) or persuasive verbal prompts delivered at disposal locations ([de Kort et al. 2008](#)) (Case study 1).





# Case study 1: Harnessing pride to reduce littering

The Australia Environmental Protection Agency ([2018](#)) tested four different communication strategies for encouraging cigarette butt binning (see right for key copy from the communications).

These were all placed in timely locations across 38 disposal sites and were compared to baselines in each site and 6 matched control sites.

**Signage which focussed on building a sense of pride and ownership had the biggest effect** on cigarette butt binning behaviour, achieving a 64% binning rate. This was measured using weekly observation of butt binning by trained observers at each site.

Enforcement was the next most effective (62% binning rate) followed by positive social norming (58%) and signage with directions to bins (53%).



**YOUR SPACE**  
own it,  
*love it*

**1) Pride and ownership (7 sites)**

**\$80 fine or a few  
steps to the  
bin?**

**2) Enforcement (6 sites)**

*Thanks for  
binning your  
butts!*

**3) Positive social norms (11 sites)**

**Bin your butt  
here**

**4) Directional cues (14 sites)**



# What comms nudges work to improve fire safety?

## Awareness



**Use ‘slash symbols’.** As long as the slash does not cover the main image, these signs are effective where park warnings include injunctions not to do particular things. Solid red slashes are more effective than translucent or partial slashes ([Murray et al. 1998](#)).



**Dynamic risk:** Where the level of risk is changeable, dynamic features (e.g. a 3 tier traffic light system) that change with the seasons or conditions have been suggested ([Saunders et al. 2019](#)). Electric fire safety signs have been installed in Australia for this purpose ([Fire and Emergency NZ, 2017](#)). In another context, variable ‘traffic-light’ signs introduced by Hampshire County Council appears to have reduced dog attacks on grazing livestock ([Heath 2017](#)).



**Targeted social media messages:** Social media campaigns for fire safety messaging are suggested to be more effective during particular ‘windows’ of time, such as when bushfires are in the news, or when risk is very high. It is also recommended that specific audiences, such as those using campaign websites, should be targeted ([Fire and Emergency NZ, 2017](#)).



Example of dynamic risk communication from California.



# What comms nudges work to improve fire safety?

## Motivation



**Fear can be effective:** In another US field experiment in a Californian national park, ([Cohn et al. 2008](#)) found that a verbal fear appeal led to significantly higher fire safety compliance than a verbal moral appeal (Case study 2).



**Avoid advertising negative social norms:** Although not tested directly in a fire safety context, it is well-known that advertising negative norms can reduce compliance in national parks. For instance, a well-known study in a US national park found that messages highlighting the problem of past visitors taking fossilised wood actually backfired by increasing visitors' theft ([Cialdini et al. 2006](#)). In fact, the author of this seminal study, Cialdini calls highlighting negative social norms 'the big mistake' of communications intended to increase compliance with a guideline or rule.



The negative social norms message from [Cialdini et al. \(2006\)](#) which backfired - leading to an increase in the undesirable behaviour



## Case study 2: Using fear to boost fire compliance

A US field experiment examined the effects of message type (fear vs moral messaging) and source (verbal or signage) on fire compliance in a Californian national park. ([Cohn et al. 2008](#)). The experiment with 263 visitors in total, used six treatment groups and one control spread out across two 'experimental picnic zones' on randomly selected days.

The treatment groups received verbal messages (delivered by U.S. Department of Agriculture Forest Service volunteers) about either a) awareness of sanctions (fear) or b) altruistic messages (moral). The sign included a simple "no fire" message.

They found that both verbal messages had positive effects (relative to a no-message control) on compliance with fire regulations - boosting 'superior compliance' (e.g. not leaving flames unattended and using provided grills) from 45% to 66% and 69% respectively.

This meant the **fear appeal had slightly higher compliance than the moral appeal** and this effect was significant.

The physical signs saying "no fire" did not boost compliance significantly alone but did increase the effect of the verbal messages when used in combination.





# What comms nudges work to keep people to the path?

## Awareness and Ease



**Tell people what they should not do:** An experimental field trial with UK hikers ([Winter 2006](#)) found that a negatively framed message - “please don’t go off the path” was 3 times more effective than a positive framed message - “please stay on the path” (Case study 3).



**Use big signs:** In general, larger signs are more effective at promoting pro-environmental behaviours ([Sussman & Gifford 2012](#)).



**Prompt at the moment of action:** Signs placed closer in proximity to where an undesirable behaviour occurs (such as near where people often move off the hiking trail) also have been found to be more effective at preventing people from engaging with those undesirable behaviours ([Bradford & McIntyre, 2007](#)).



Paths on Tunbridge Wells Common.  
Example of ‘social trails’



# What comms nudges work to keep people to the path?

## Motivation



**Emphasise positive social norms:** In another part of the previous study on hiking trail signs ([Winter 2006](#)) emphasising the good behaviour - that the vast majority of past visitors keep to the path - was more effective than emphasising the undesirable behaviour - that many past visitors have gone off the path (case study 3).



**Attribute cause to individuals:** In one study, the addition of an attribution message such as “Your feet have trampled the vegetation on this island. Please stay on the main wood-chipped trail” was more effective than just the instruction to say on the trail ([Bradford & McIntyre, 2007](#)).



**Highlight consequences:** An experimental US field trial ([Girasek 2019](#)) found that signs (at the water's edge and site entrance) alerting park visitors that water entry is illegal and finable, was associated with significantly reduced risk-taking, compared to previous signs emphasising the danger.





# Case study 3: Using social norms to keep on the path

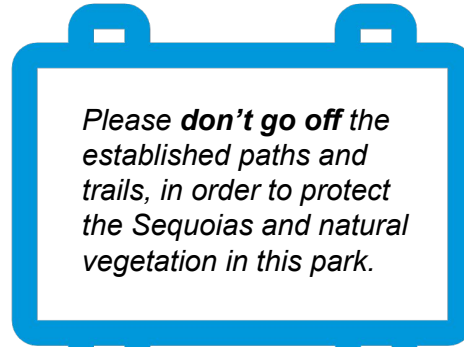


An experimental study by [Winter \(2006\)](#) tested the effects of different types of social norms and framing in influencing hikers to keep to the path in a US park. It randomly allocated 4 different versions of the sign, plus a control (no additional sign) across 20 randomly selected times for video observation, with a total sample of 2,897 people using the paths.

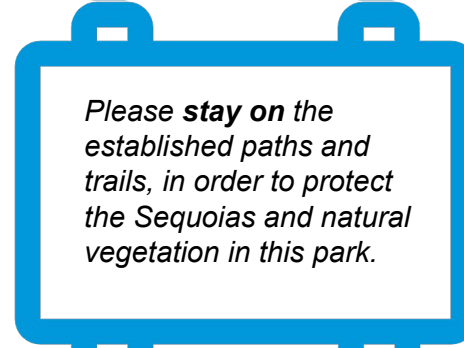
It found two key insights:

Emphasising the good behaviour - that the vast majority of past visitors keep to the path - was more effective than emphasising the undesirable behaviour - that many past visitors have gone off the path (11.8% users going off-trail vs 18.7%)

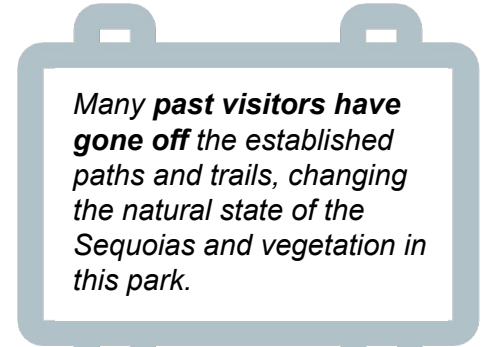
A negatively framed message - “please don’t go off the path” which described the behavior that should not be done was 3 times more effective than a positive framed message - “please stay on the path” - which described the preferred behaviour (5.1% users going off-trail vs 15.9%).



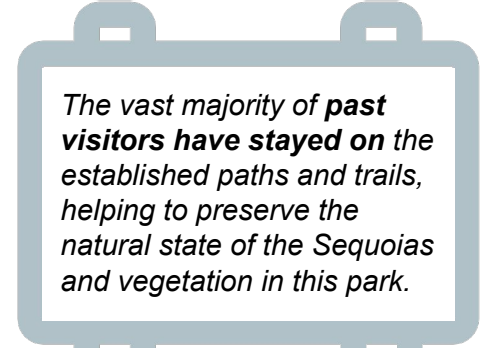
1)



3)



2)



4)



# Conclusions

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# What solutions should be prioritised?



In response to these key barriers, we have identified three promising areas for solutions:



**1) Achieve greater awareness of guidelines and the reasons behind them** - with **clear, timely information**, such as signage in the areas where undesirable behaviours are prevalent and examples of positive behaviours or alternatives.



**2) Provide more convenient ways to adhere to guidelines** - **with facilities/tools (e.g. bins, plastic bags, alternatives)** and by reducing the cognitive effort required to understand the guidelines (e.g, clearer instructions and cues).



**3) Ensure people are sufficiently motivated** - through **prompts to increase salience**, reminders, and **communicating future benefits** (e.g. about the positive impact for an area). Stronger motivational change requires more intensive changes to social identity, the addition of **social incentives** (such as social comparison and signalling) or the increased threat of detection and sanctions.

**The combined importance the key barriers will differ across behaviours.** For instance, for littering, where awareness is high, but enforcement and accountability is low, convenience will be highly important. In contrast, for locally-specific guidelines, such as fire safety guidelines, awareness of local guidelines (and the reasons behind them) will be more important.

We also outline general **principles for effective communications** in the Appendix.

# Behavioural insights for the Countryside Code

Message Testing  
June 2021



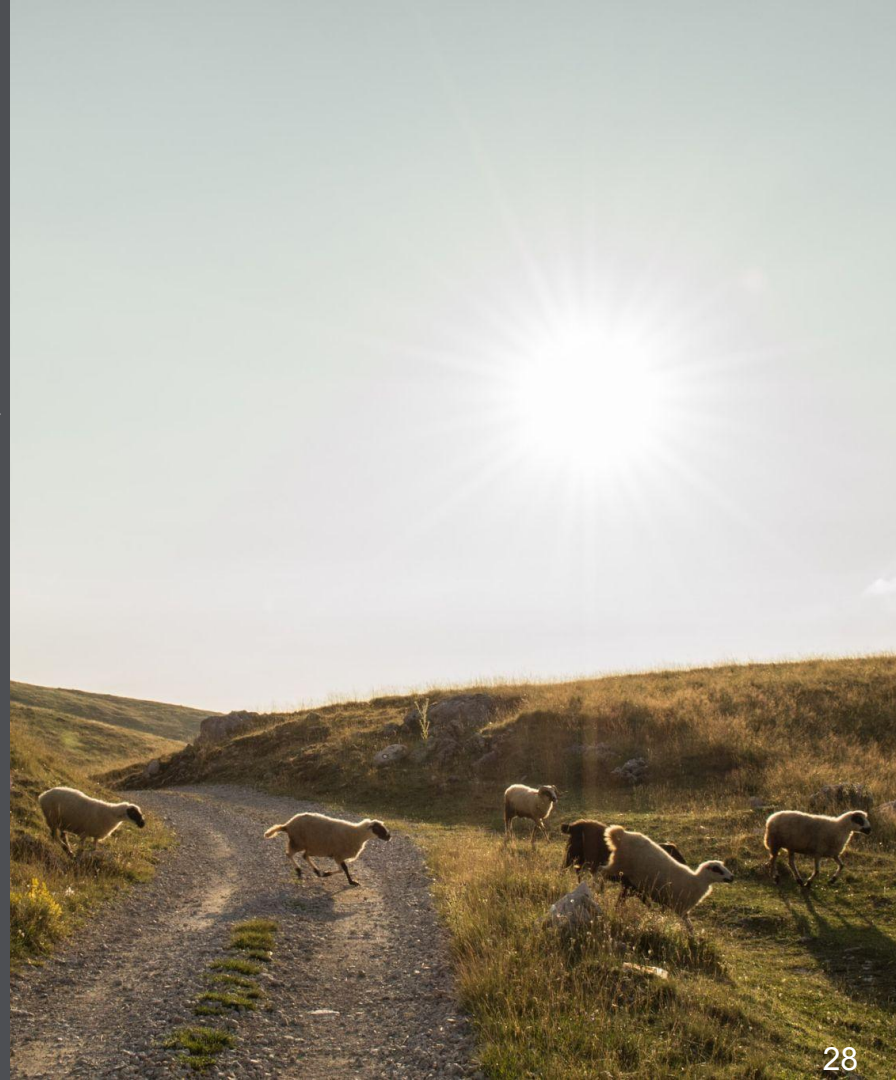
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# Executive Summary

1. BIT ran an online experiment with a representative sample of 2,418 adults in England on 10-12 May 2021 to **test whether behaviourally-informed tweets and posters encourage responsible recreation in the countryside and nature reserves. The behaviours tested were littering, straying from paths, and having BBQs.**
2. **Overall intent to behave responsibly was high** (~4 in 5 intend to behave responsibly across all measures), particularly among women, older people and those who live in rural areas.
3. **Intent to dispose of biodegradable litter properly and to stick to pathways increased after seeing the treatment messaging.** We think this was due to clear, actionable advice on what (not) to do in the text.
4. **Highlighting “identifiable victims”** (with pictures of animals harmed by litter, or plants destroyed by people going off the path) **increased engagement** with the linked materials, particularly for littering.
5. **To discourage people having BBQ’s, the Control sign outperformed the Treatment sign.** This is likely because clear symbols were better understood than text. Specifying ‘prohibited’ did not increase the threat of enforcement.

## Intent to behave responsibly was high



85% would dispose of litter properly (93% non-biodegradable, 87% biodegradable)



83% would stick to paths



81% would not have a BBQ (though concerning given severity of non-compliance)

## People responded better to direct advice in the treatment tweets

Litter harms our wildlife. Please take care of your litter.

- ✗ If the bin is full, don't dump
- ✓ Take it home, including food
- ✓ Bring a bag next time

Walking off the path damages our countryside.

- ✗ Don't leave marked paths
- ✓ Avoid cutting corners over crops and wildlife
- ✓ Keep to routes to not get lost

# Recommendations

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1) **Be specific about the behaviours you do and do not want people to do, especially for behaviours with lower baseline awareness and intent** (e.g. use phrasing such as *“If the bin is full, don’t dump”* rather than *“Please remember to take your rubbish home to help look after the natural environment”*).



2) **Use behaviourally informed framing on social media.** ‘Actions’, ‘norms’ and ‘identifiable victim’ all performed well and are unlikely to backfire on recall, intentions, attitudes or sentiment. The ‘identifiable victim’ was most effective at increasing engagement with linked materials.



3) **Use visual aids to compliment the text on fire safety signs** and consider specifying fines, or ‘illegality’ rather than ‘prohibited’ to emphasise enforcement. The treatment sign did not outperform the control sign in terms of perceived threat of enforcement or damage.

# Recommendations

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**4) Consider introducing (and signposting) designated areas for BBQs and campfires.** 79% of those who would initially have the BBQ anyway (n=187; 8%) said they would move to a designated BBQ area if they saw one on a map. But this needs to be tested to ensure it doesn't backfire (e.g. by increasing perceived legitimacy of having BBQs in non-designated areas also).



**5) Target interventions at groups most likely to not comply.** Our findings show that young people, men, those who live in urban areas, and those who visit frequently are more likely to fail to follow the Countryside Code. This suggests that messages targeted at - and further tailored for - these groups may be disproportionately effective at reducing littering, straying from paths or setting fires. Designing other communication frames - using attractive messengers, appealing to social identity or drawing on gamification - should also be tested. However, note that in this experiment, we *did not find any differences* in the reactions of these key groups to our messages.

# Overview

BIT worked with Natural England to **test whether behaviourally-informed tweets and posters encourage responsible recreation in the countryside and nature reserves**. We collected responses from an online representative sample of 2,418 adults in England on 10-12 May 2021.

## NOTE ON INTERPRETING THESE RESULTS

1. The sample is 'online' representative - it doesn't capture the digitally excluded, or people otherwise not inclined to complete online surveys.
2. Just because people say in an online experiment that they would do something, this doesn't mean they always will in real life. We therefore interpret stated intent as a likely upper bound of real behaviour.
3. When we examine differences by subgroups (e.g. gender, ethnicity), we only do so when the underlying sample size remains large enough to draw robust inferences from.

## Sample of 2,418 adults in England

Gender		Region		Ethnicity	
Women	50%	South & East	36%	White	85%
Age		North	27%	Asian	8%
18-24	13%	Midlands	21%	Black	3%
25-54	55%	London	16%	Mixed / other	4%
55+	33%	Geography	Urban	Suburban	Rural
			31%	49%	21%

Median time spent completing survey: 8m 34s

Also collected data for all respondents on education, income, smoking status, urban/rural/suburban, frequency of countryside visits, familiarity with the Countryside Code



# Summary of the experiment: testing tweets, signs and taglines



## Tweets

We assessed how attitudes and intentions around (i) littering and (ii) people straying from designated footpaths varied across **5 arms (4 arms with two targeted tweets and one baseline arm with no tweets)**. We also tested recall of these tweets.

#	Tweet message
1	Baseline (no tweet) (n=224)
2	Control (n=547)
3	Victim (n=553)
4	Action (n=587)
5	Norm (n=507)



## Signs

We assessed how attitudes and intentions around open fires, BBQ's and discarding of cigarettes in the countryside and nature reserves varied across **3 arms (2 with a fire safety sign and one with no sign)**. We also tested recall of these signs.

#	Fire safety sign
1	Baseline (no sign) (n=224)
2	Control (n=1,093)
3	Treatment (n=1,101)

In experiment 1 and 2, the baseline group remained the same throughout the experiment. Participants who were not in the baseline group were re-randomised between experiments 1 and 2, and all participants were re-randomised for experiment 3. The type of material tested was decided collaboratively (between NE and BIT staff), based upon perceived usefulness for upcoming NE campaigns, and what existing NE materials could act as a control (recent NE social media content for littering and paths, and new NE signage for fire safety). The number of experimental variations was constrained by the maximum sample size achievable in the budget.

## Taglines

We tested 3 versions of taglines for Natural England to elicit how people felt about them.

#	Taglines
1	Control (n=819)
2	Personal (n=799)
3	Actions (n=800)



Participants were randomly assigned to see either no materials (n = 224), or one of four versions of the two tweets.

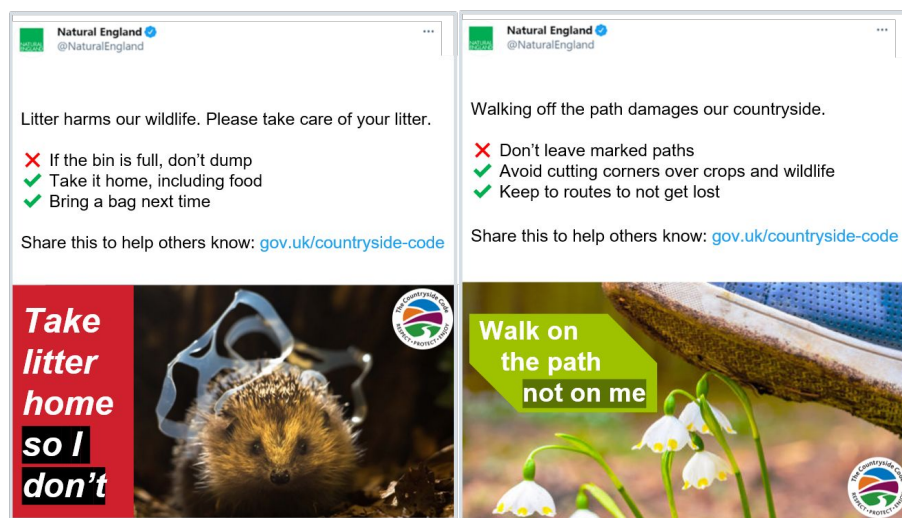
## Control



N = 547

Median initial viewing time = 19s

## Victim



N = 553

Median initial viewing time = 22s



Participants were randomly assigned to see either no materials (n = 224), or one of four versions of the two tweets.

## Action

Natural England @NaturalEngland

Our countryside is amazing, so is taking litter home

- ✗ If the bin is full, don't dump
- ✓ Take it home, including food
- ✓ Bring a bag next time

Share this to help others know: [gov.uk/countryside-code](http://gov.uk/countryside-code)

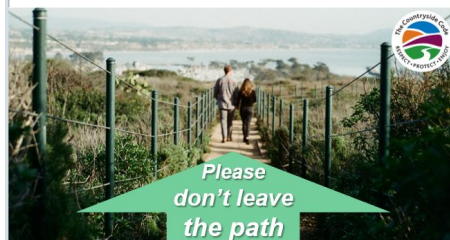


Natural England @NaturalEngland

Keep being great in the countryside, keep to the path

- ✗ Don't leave the marked paths
- ✓ Avoid cutting corners over crops and wildlife
- ✓ Keep to routes to not get lost

Share this to help others know: [gov.uk/countryside-code](http://gov.uk/countryside-code)



N = 587

Median initial viewing time = 21s

## Norm

Natural England @NaturalEngland

Nobody wants to see litter in the countryside. The great majority take rubbish home if bins are full or not nearby.

We:

- ✗ Don't dump litter by bins
- ✓ Take litter home, including food
- ✓ Bring bags

Share this to help others know: [gov.uk/countryside-code](http://gov.uk/countryside-code)



Natural England @NaturalEngland

Nobody likes a trampled countryside. The great majority stay on paths to protect nature.

We:

- ✗ Don't leave marked paths
- ✓ Avoid cutting corners over crops and wildlife
- ✓ Keep to routes to not get lost

Share this to help others know: [gov.uk/countryside-code](http://gov.uk/countryside-code)



N = 507

Median initial viewing time = 21s



### Key Findings I.

All tweets generally encourage more favourable behaviour compared to the baseline. ~5 percentage points fewer people would dispose of biodegradable litter properly (vs non-biodegradable waste).



% who would...	Control (n = 547)	Victim (n = 553)	Action (n = 587)	Norm (n = 507)	Baseline (n = 224)
<b>Overall litter tweet intent score</b>	<b>75%</b>	<b>76%</b>	<b>77%</b>	<b>76%</b>	<b>72%</b>
... would dispose of their non-biodegradable litter properly*	90%	93%	94%	93%	94%
... would dispose of their biodegradable litter properly	86%	88%	88%	88%	84%
... would pick up other people's litter	74%	76%	72%	70%	68%
... would not leave litter next to a full bin	88%	89%	89%	88%	81%
<b>% who think others would...</b>					
... dispose of their non-biodegradable litter properly	63%	60%	64%	66%	61%
... dispose of their biodegradable litter properly	49%	49%	52%	54%	43%

Baseline intent to not litter is high, but the tweets still help

\*Disposing of litter properly means they would take their litter home or to the nearest bin  
Full scenarios available in Appendix I.  
Green shading identifies statistically significantly highest (or joint highest) value within row.  
Data collected by BIT on 10-12 May 2021.



## Key Findings II.

After seeing treatment tweets, people are less accepting of leaving rubbish next to a full bin (vs the control and baseline).

~1 in 3 think that is acceptable to leave biodegradable litter, this is higher after seeing the control tweets (backfire).

% who think it's OK to leave...	Control (n = 547)	Victim (n = 553)	Action (n = 587)	Norm (n = 507)	Baseline (n = 224)
... non-biodegradable rubbish in the countryside	16%	16%	15%	15%	15%
... biodegradable rubbish in the countryside	34%	31%	31%	29%	31%
... a pile of rubbish next to a full bin	35%	26%	28%	25%	33%



People respond to clear and actionable phrasing of messages that focus on specific behaviours. The **treatment messages** performed better than the **control**.

- ✗ If the bin is full, don't dump
- ✓ Take it home, including food
- ✓ Bring a bag next time

As you venture outdoors, enjoy a visit to either a park, coastline, or rural countryside spot. Please remember to take your rubbish home to help look after the natural environment. [@NaturalEngland](#)  
[#CountrysideCode](#)



# Discussion: Littering

Overall, **3 in 10 people admitted they would litter** in some shape or form.

People were more likely to say they **would leave behind biodegradable waste** (such as food) compared to non-biodegradable waste (such as packaging).

This is likely because littering **biodegradable waste** was deemed to be twice as acceptable than non-biodegradable waste (**31% vs 16%**). This was likely because people thought that **biodegradable waste can be food for animals or would naturally decompose**, and is therefore okay to leave behind.

Whilst all tweets reduced intent to litter compared to this baseline, **our treatment communications** were more effective at making people less likely to litter food and dump litter by a bin, because they **corrected people's (mis)perceptions about acceptability of these behaviours**.

These results showcases the importance of being as specific as possible about (un)desirable behaviours in communications.



### Key Findings III.

**Clear, actionable phrasing matters most for specific behaviours with low baseline compliance. The treatment tweets increased participants' stated intent to avoid taking shortcuts.**



#### Scenario

Imagine that you are on a walk through the countryside with some friends. You are currently walking along a designated footpath. You see your destination a couple of fields away, but it is in the opposite direction to the footpath that you are currently on.

% who...	Control (n = 547)	Victim (n = 553)	Action (n = 587)	Norm (n = 507)	Baseline (n = 224)
... would stay on the footpath or allowed trails in the scenario*	82%	84%	83%	83%	82%
<b>% who would definitely not take a shortcut even if...</b>					
... they can see others have taken it before	37%	46%	43%	42%	35%
... their friends want to take it	41%	49%	46%	46%	36%
... the field had a closed gate with signs stating no access	63%	65%	70%	66%	65%
... there are animals in the field that they want to walk through	57%	60%	64%	62%	58%
... in any of the above situations	29%	36%	35%	34%	28%

**Again, people respond to more clear and actionable phrasing of messages that focuses on specific behaviours.**

The **treatment messages** outperformed the control.

- ✗ Don't leave the marked paths
- ✓ Avoid cutting corners over crops and wildlife
- ✓ Keep to routes to not get lost

*Full scenario available in Appendix II.  
Green shading identifies statistically significantly highest (or joint highest) value within row.  
Data collected by BIT on 10-12 May 2021.*



## Discussion: Paths

**As many as 7 in 10 people admitted they may stray from the path** when asked about realistic scenarios. This appears to be driven by social influence in situations where they could see others have left the path or their friends want to do so.

This is almost **the exact opposite of what we found when people were asked about the general principle of ‘keeping to the path’, with 8 in 10 saying they would stick to it.** This suggests that whilst people recognise desirability of following the paths, this belief is not strongly held and/or is deemed situationally contingent. Indeed, it appears that many people feel that leaving the path is acceptable, for instance to reach beautiful areas. Some don’t believe it could cause any real damage, suggesting they don’t fully understand the rationale for the rule.

**The treatment materials did strongly increase people’s stated intent to keep to paths,** when considering these realistic scenarios involving shortcuts. Again, this was likely because the **treatment tweets provided specific behavioural instructions** (e.g. around not cutting corners over crops and wildlife).





#### Key Findings IV.

**Participants perceived all tweets positively, but found the 'Victim' and 'Norm' tweets easiest to understand.**

% who...	Control (n = 547)	Victim (n = 553)	Action (n = 587)	Norm (n = 507)
<b>Overall tweet sentiment score*</b>	<b>71%</b>	<b>72%</b>	<b>71%</b>	<b>71%</b>
... think the tweets are easy to understand	83%	88%	84%	85%
... do not think the tweets are annoying	68%	69%	68%	70%
... think the tweets will help reduce the litter in the countryside	67%	67%	67%	68%
... think the tweets will help people to stick to the footpaths	68%	66%	65%	67%
... are likely to share the tweet with their social network	71%	70%	71%	67%

\*The overall 'tweet sentiment' is the combined (average) proportion of positive responses to the five survey questions related to respondents' opinions and feeling towards the tweets - which we define as their 'sentiment' towards them.

## Additional Findings I.



**~1 in 5 clicked on at least one of the tweets. People engaged the most with the Control and Victim tweets, as measured by click throughs. The Victim litter tweet performed the best.**

% who clicked on ...	Control (n = 547)	Victim (n = 553)	Action (n = 587)	Norm (n = 507)
... at least one of the tweets	20%	24%	17%	17%
... the litter tweet	12%	17%	12%	10%
... the paths tweet	14%	16%	11%	12%

*Green shading identifies statistically significantly highest (or joint highest) value within row.  
Data collected by BIT on 10-12 May 2021.*

Clicks on the tweets did not vary by age, gender, ethnicity, geography or frequency of countryside visit

5 percentage points more people clicked on the 'Victim' litter tweet compared to the other litter tweets





## Discussion: All tweets

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**Our treatment tweets - Victim and Norm - were easiest to understand.** As mentioned in our recommendations, this suggests that Natural England can try these types of different frames and angles, without concern about potential backlash.

**Looking at engagement (click through rate), the Victim tweet performed best,** and in particular this was the case for littering (which generated a 5 percentage point increase in click through compared to the other litter tweets).

Only 1 in 4 recalled that the tweets were from Natural England, suggesting more signposting to the messenger might be needed. On average, 1 in 2 participants remembered the tagline - and this was slightly higher for the treatment group, despite the use of hashtag with the tagline in the control tweets.

About 1 in 3 **participants did not recall the main message of the tweets.** As always, this highlights the need for clear and salient messaging, but may be explained by some participants inattention online.



Methodology.

Participants who were not in the baseline group (n = 224) were then re-randomised to see one of two signs.

## Control



N = 1,093  
Median initial viewing time = 8s

## Treatment



N = 1,101  
Median initial viewing time = 8s

*Participants also saw the signs as they answered intent and sentiment (but not recall) questions.*

*Data collected by BIT on 10-12 May 2021.*



### Key Findings V.

**10 percentage points more people would not have a BBQ after seeing either the control or treatment sign. 8 in 10 of those who would initially have a BBQ would move to a designated BBQ area if one existed.**



% who...	Control (n=1,093)	Treatment (n=1,101)	Baseline (n=224)
<b>Overall sign intent score</b>	<b>66%</b>	<b>65%</b>	<b>54%</b>
... would not have a BBQ when they were not allowed	82%	82%	72%
... think others would have a BBQ when they were not allowed	48%	47%	42%
... would act to try to stop others from having a BBQ	67%	67%	47%

**79%** of those who would initially have the BBQ anyway (n = 187) said they would move to a designated BBQ area if they saw one on a map.

*“Australia’s nature reserves have designated areas with stone/concrete barbecue sites. Maybe we should follow their lead.”*

*Green shading identifies statistically significantly highest (or joint highest) value within row.  
Data collected by BIT on 10-12 May 2021.*



# Discussion: Fires

**As many as 1 in 5 people admitted they would have BBQs in areas where it is forbidden.** This is particularly concerning given the high severity of not adhering to BBQ guidelines (e.g. risk of forest fire).

**Exposure to either the control or treatment sign significantly reduces people's stated intent to have BBQs** in these areas by 10 percentage points. This is a strong evidence for the need for locally relevant fire and BBQ signage.

**With the control sign, there was higher recall of messages and increased perceive risk of fire.** But this did not translate into a higher perceived likelihood of damage, or intent to avoid BBQs - highlighting the fact that changing awareness does not always change intentions.

**The use of 'prohibited' on the treatment sign did not have the intended effect of increasing the perceived enforcement threat.** However, it is possible that other wording (such as 'illegal' or highlighting the potential fine) might be more effective.

# Participants who would act favourably across all measured intentions tended to be older, female, live in rural areas, and visit the countryside rarely.



**85%** would not leave either type of litter (biodegradable or non-biodegradable) in the countryside



**83%** would stay on the footpath or allowed trails in the scenario provided



**81%** would not have a BBQ when they were not allowed

		85% would not leave either type of litter (biodegradable or non-biodegradable) in the countryside	83% would stay on the footpath or allowed trails in the scenario provided	81% would not have a BBQ when they were not allowed
<b>Age</b>	Under 25 (n=308) 25 to 54 (n=1,321) 55 and over (n=789)	<b>70%</b> Under 25 <b>82%</b> 25 to 54 <b>95%</b> 55 and over	<b>66%</b> Under 25 <b>80%</b> 25 to 54 <b>94%</b> 55 and over	<b>67%</b> Under 25 <b>79%</b> 25 to 54 <b>90%</b> 55 and over
<b>Gender</b>	Male (n = 1,203) Female (n = 1,204)	<b>82%</b> Male <b>87%</b> Female	<b>80%</b> Male <b>86%</b> Female	<b>78%</b> Male <b>84%</b> Female
<b>Geography</b>	Urban (n = 740) Suburban (n = 1,176) Rural (n = 502)	<b>77%</b> Urban <b>87%</b> Suburban <b>90%</b> Rural	<b>74%</b> Urban <b>85%</b> Suburban <b>91%</b> Rural	<b>73%</b> Urban <b>84%</b> Suburban <b>87%</b> Rural
<b>Visit the countryside†</b>	Frequently (n = 851) Rarely (n = 1,065)	<b>74%</b> Frequently <b>90%</b> Rarely	<b>73%</b> Frequently <b>87%</b> Rarely	<b>72%</b> Frequently <b>86%</b> Rarely

†Of those who do not live in rural areas. Frequent visits are classified as “once every two weeks” or more.

Green text identifies statistically significantly highest (or joint highest) value within category. Data collected by BIT on 10-12 May 2021.

## Key Findings VI

Finally, we tested three taglines. The ‘Control’ and ‘Personal’ taglines outperformed ‘Action’ on most measures of sentiment.

All participants were then randomly assigned to see one of three taglines.

<b>Control</b> (n=819)	<i>Respect everyone</i> <i>Protect the environment</i> <i>Enjoy the outdoors</i>
<b>Personal</b> (n=799)	<i>Respect others you see</i> <i>Protect the nature you love</i> <i>Enjoy your great outdoors</i>
<b>Action</b> (n=800)	<i>Clean up your litter</i> <i>Keep to paths</i> <i>Be careful with BBQs</i>

% who said that ...	Control	Personal	Action
<b>Overall tagline sentiment score</b>	84%	84%	81%
... they can relate to the message	84%	83%	80%
... the message captures how they feel about the countryside	82%	83%	80%
... the message captures how they think people should behave in the countryside	84%	85%	81%
... they think it's a good motto for Natural England	84%	84%	81%

Green shading identifies statistically significantly highest (or joint highest) value within row.

Data collected by BIT on 10-12 May 2021.



# The suggested improvements to the taglines centred around focusing the messages on the 'countryside' or 'wildlife', and to move beyond a three line catchphrase

## All statements were easy to understand

*"I think it's easy to understand and relatable" - Control*

*"It is a good clear message which people will understand." - Personal*

*"It gives out a strong message of the main points to adhere to when in the countryside" - Action*

## Some felt the 3 statements were too domineering

*"I think people are sick to death of these 3 word things Hands, face, space; catch it bin it kill it, etc. ad nauseum. Why not just have respect for all 3."*

*"The 3 statements gave a feeling of the Covid message, which people are being blase about. They may just ignore it as fed up being preached to."*

*"Too much like covid slogans. As if the same ad agency has been given a load more of our money and just regurgitated the same old two-word nagging lines."*

## There was also some tagline specific constructive feedback

### Control

*"Respect everyone is a little ambiguous in the sense that you shouldn't let just anything go."*

*"Not sure Protect Everyone conveys the correct message... we should also be mentioning wildlife."*

*"Protect everyone is a silly notion because they might be littering and having BBQs! Better to say Protect and Respect Wildlife"*

### Personal

*"Not sure what 'respect others you see' refers to"*

*"I feel it is just empty words it doesn't tell people how."*

*"Respect others you see. This is quite vague and won't mean much to most people."*

### Action

*"It's good to point out the 'Don'ts' but also important to emphasise what you can do to enjoy the countryside"*

*"It might be nice to add a line that says to enjoy the countryside rather than it just being 'don'ts'"*

*"There is no mention of protecting nature and the environment"*

*Data collected by BIT on 10-12 May 2021.*

# References

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# References

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Ager, J & Lawrence, T. (2018). Tackling Current Issues In Fly-tipping – A View From A London Borough. Journal Of Litter And Environmental Quality. [https://www.keepbritaintidy.org/sites/default/files/resource/15913\\_Journal%20of%20Litter%20and%20Environmental%20Quality\\_v7-online%20%281%29.pdf](https://www.keepbritaintidy.org/sites/default/files/resource/15913_Journal%20of%20Litter%20and%20Environmental%20Quality_v7-online%20%281%29.pdf)

Al-Mosa, Y., Parkinson, J., & Rundle-Thiele, S. (2017). A socioecological examination of observing littering behavior. Journal of Nonprofit & Public Sector Marketing, 29(3), 235-253.

Bateson, M., Callow, L., Holmes, J. R., Roche, M. L. R., & Nettle, D. (2013). Do images of 'watching eyes' induce behaviour that is more pro-social or more normative? A field experiment on littering. *PloS one*, 8(12), e82055.

Bradford, L. E., & McIntyre, N. (2007). Off The Beaten Track: Messages As A Means Of Reducing Social Trail Use At St. Lawrence Islands National Park. Journal of Park & Recreation Administration, 25(1).

Cialdini, R. B., Demaine, L. J., Sagarin, B. J., Barrett, D. W., Rhoads, K., & Winter, P. L. (2006). Managing social norms for persuasive impact. *Social influence*, 1(1), 3-15.

Cohn, S. S., Hendricks, W. W., & Chavez, D. J. (2008). Visitor compliance with fire restrictions: An observational study using verbal messages and symbolic signage. Fire social science research from the Pacific Southwest Research Station: studies supported by National Fire Plan funds, 33.

Corsini, F., Gusmerotti, N. M., Testa, F., & Iraldo, F. (2018). Exploring waste prevention behaviour through empirical research. *Waste Management*, 79, 132-141.

de Kort, Y. A., McCalley, L. T., & Midden, C. J. (2008). Persuasive trash cans activation of littering norms by design. *Environment and Behavior*, 40, 870–891

Department of Planning, Industry and Environment (2019). Understanding Change in Litter Behaviour post ad exposure.

Eagles, P. F., & McCool, S. F. (2002). Tourism in national parks and protected areas: Planning and management. Cabi. p.99,

Environmental Protection Agency. (2018). Identifying effective strategies to reduce cigarette butt litter. <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/litter/19p1840-butt-litter-trial-report.pdf>

# References

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Fire and Emergency New Zealand. (2017). Changing Public Behaviour: Enhanced & Improved Communication Of Fire Danger. <https://fireandemergency.nz/assets/Documents/Files/Report-156-Changing-public-behaviour-report-Dec-2017.pdf>

Goh, E. (2020). Walking off-trail in national parks: Monkey see monkey do. *Leisure Sciences*, 1-23.

Heath, M. (2017). Tackling livestock worrying and encouraging responsible dog ownership. All-Party Parliamentary Group for Animal Welfare.

Keep Britain Tidy. (2011). The Effectiveness of Enforcement on Behaviour Change.

Lawhon, B., Newman, P., Taff, D., Vaske, J., Vagias, W., Lawson, S., & Monz, C. (2013). Factors influencing behavioral intentions for Leave No Trace behavior in national parks. *Journal of Interpretation Research*, 18(1), 23-38.

Liu, J. H., & Sibley, C. G. (2004). Attitudes and behavior in social space: Public good interventions based on shared representations and environmental influences. *Journal of Environmental Psychology*, 24(3), 373-384.

Liu, J., Wu, J. S., & Che, T. (2019). Understanding perceived environment quality in affecting tourists' environmentally responsible behaviours: A broken windows theory perspective. *Tourism Management Perspectives*, 31, 236-244.

Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6(1), 1-12.

Murray, L. A., Magurno, A. B., Glover, B. L., & Wogalter, M. S. (1998). Prohibitive pictorials:: Evaluations of different circle-slash negation symbols. *International Journal of Industrial Ergonomics*, 22(6), 473-482.

National Environment Agency. (2011). Towards a Cleaner Singapore: Sociological Study on Littering in Singapore.

# References

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Ong, I. B. L., & Sovacool, B. K. (2012). A comparative study of littering and waste in Singapore and Japan. *Resources, Conservation and Recycling*, 61, 35-42.

Papaioannou, D., Sutton, A., Carroll, C., Booth, A., & Wong, R. (2010). Literature searching for social science systematic reviews: consideration of a range of search techniques. *Health Information & Libraries Journal*, 27(2), 114-122.

Rupp, T. (2008). *Meta Analysis of Crime and Deterrence: A comprehensive Review of Literature*. Ph.D.thesis, Technische Universität Darmstadt, Darmstadt.

Saunders, R., Weiler, B., Scherrer, P., & Zeppel, H. (2019). Best practice principles for communicating safety messages in national parks. *Journal of Outdoor Recreation and Tourism*, 25, 132-142.

Sterl, P., Brandenburg, C., & Arnberger, A. (2008). Visitors' awareness and assessment of recreational disturbance of wildlife in the Donau-Auen National Park. *Journal for Nature Conservation*, 16(3), 135-145.

Sussman, R., & Gifford, R. (2012). Please turn off the lights: The effectiveness of visual prompts. *Applied ergonomics*, 43(3), 596-603.

Sussman, R., Greeno, M., Gifford, R., & Scannell, L. (2013). The effectiveness of models and prompts on waste diversion: A field experiment on composting by cafeteria patrons. *Journal of Applied Social Psychology*, 43(1), 24-34.

Winter, P. L. (2006). The impact of normative message types on off-trail hiking. *Journal of Interpretation Research*, 11(1), 35-52.

# Appendix 1: Designing effective communications

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Summary of BIT's 'BI Principles for communications' report produced for Natural England as part of this project

# Communications must first attract the target audience's attention



**When our attention is drawn to something, we are more likely to act on it.** However, we are constantly overwhelmed by excessive information and our attention span is limited. Even when attention is attracted, people will often only spend fractions of a second looking at communications so they should be designed to **draw attention to the most important bits.**



**Use colour, contrast, bold font or border key messages to attract attention.** Adding an image or an infographic that reinforces your message can help make information more accessible. As with text, images should be simple and easy to understand. Ensure any images depict the desired behaviours (avoid showing undesirable behaviours!). *Tip: Faces and eyes often attract our gaze. And, if appropriate, use humour!*



**Use an influential messenger** - the person who sends a given communication can affect how it is received. Messages from well-known and well-regarded people, or those with specific expertise, are perceived as more credible and lead to increased engagement. However, someone who is a credible messenger for one audience may not be for another audience, so understanding your audience is key. *Tip: We are more responsive to messengers 'like us' i.e people that are more relatable or representative of the target audience.*



**Make messages timely** - our priorities and moods are greatly affected by the context around us, meaning we attend to and respond to messages differently depending on when and where we see them. Messages should be targeted at the moment of action or choice e.g. at times of the year when people are most likely to access the countryside and at access points, such as car parks or gates. *Tip: We are particularly likely to change our behaviour during transitions when habits are disrupted or not yet formed - such as moving house.*



# To be effective, content must engage your target audience

Once our attention is drawn to the communications material, **the message needs to quickly and effectively convey the crucial information**. As mentioned, even when attention is attracted, people will often only spend fractions of a second looking at communications - the message must be designed with this in mind.



**Simplify wherever possible** - small changes to simplify the message can have a disproportionately large effect on behaviour. Remember to: remove all non essential content, keep language simple by using plain English, make sure that the key message is presented early and provide a single point of contact for responses. *Tip: Include key messages in the first sentence or subject line / headings.*



**Make information personalised** - we are more likely to engage with content that is relevant to us. Messages should be made relevant for the target audience e.g. tailoring to members of a particular community or group. Keep in mind that the information you want to convey might not be the information they want to read so provide something that is useful or interesting to the target audience e.g. local walking routes. *Tip: Incentives alongside messages can also boost engagement e.g. vouchers for local businesses.*



**Use positive narratives**. Messages of guilt or "should not" are common when it comes to the environment - however, unless the desired behaviour is easy, we tend to react against these messages and dismiss or avoid the issue. This "reactance" might even cause us to take action that is contrary to what is being asked. Narratives and storytelling can soften these messages. *Tip: We are particularly responsive to personal stories - however, audiences will vary in their response to different storytellers (or "messengers").*



# Information alone is not sufficient to motivate behaviour change



Often, people know what the the right thing to do is and intend to do it, but do not always behave accordingly. This is called the **intention-behaviour gap**. After attracting attention and conveying relevant information to the target audience, effective communications must translate this into behaviour change, **reducing the intention-behaviour gap by motivating action**.



**Help people to take action** by ensuring the target behaviour is clear and easy to understand. Consider the positioning of information - stating a clear “call-to-action” at the top of communications can be effective. Where possible, try to tie behaviours to existing actions or routines. *Tip: If you want people to carry out multiple actions, clearly outline the individual actions with simple text and, where appropriate, images.*



**Harness the power of social networks.** We are heavily influenced by what those around us do. Highlighting social norms, either by telling people that *most people* behave in the desired way or using dynamic norms to demonstrate that people are *increasingly* behaving in the desired way. We are particularly influenced by those ‘like us’, so tailor communications to specific social identities. *Tip: Avoid inadvertently reinforcing negative social norms by highlighting through text or images how common the undesirable behaviour is.*



**Promote self-efficacy.** We are more likely to take action when we are targeted personally, we feel we are able to take the necessary steps or the consequences will affect us personally. To encourage action, highlight the ease and effectiveness of personal action. Actions framed as personal choice and responsibility, rather than telling someone what to do, can be particularly effective. *Tip: Associate personal choice and responsibility with positive emotions, such as pride.*



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