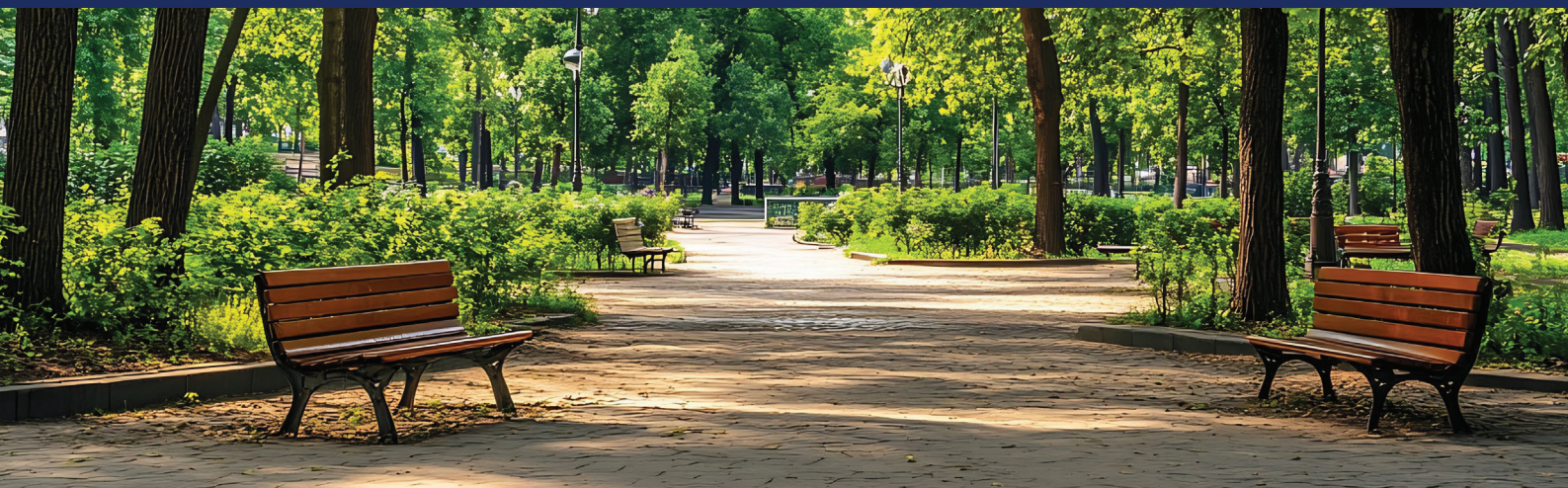


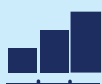
# Improving public spaces through regulatory experimentation

Reducing cigarette butt littering –  
NSW Environmental Protection Authority



Level:

**Advanced**



Industry:

**Environment**



Location:

**Australia**



## Overview

Cigarette butts pose a health and safety hazard if not properly disposed of. The NSW Environmental Protection Authority (EPA) partnered with local councils to trial different policy interventions to decrease cigarette butt littering rates.

## Key finding

Butt littering rate decreased from 62% to 42%.

## Outcome 1

Informed state-wide anti-littering guidelines.

## Outcome 2

Led to the development of the Butt Litter Check assessment tool.

## Evaluation method

Quasi-experiment.

## Background



### The NSW Environment Protection Authority (EPA) wanted to collect evidence on what works to reduce cigarette butt littering.

The EPA is the primary environmental regulator within NSW and is responsible for protecting and enhancing the state's environment. Cigarette butts pose a significant environmental hazard as they leach chemicals and increase fire risks. Available evidence suggested that litter enforcement had been ineffective in deterring cigarette butt littering, with cigarette butts the most commonly littered item in the state (43% of littered items).

The EPA was interested in collecting evidence on alternate litter prevention activities, after conducting a study which found that people who littered were highly influenced by their social and environmental context. To build on this research, the EPA conducted an experiment to investigate the effectiveness of a range of interventions at reducing cigarette butt littering.

## Intervention and outcome

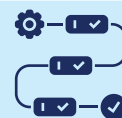


### Changing smoking site infrastructure decreased cigarette butt littering rates from 62% to 42% across all interventions.

In 2018, EPA partnered with 16 local councils to develop a quasi-experiment that assessed the effectiveness of four interventions: creating pathways to bins, instilling a sense of ownership by forming clean demarcated smokers' areas, communicating social norms and emphasising enforcement. These intervention sites were compared to control sites which received no intervention. The project measured littering behaviour and prevalence at baseline, during and three months post-intervention via direct observation and interviews with smokers.

At the end of the experiment, all interventions had reduced butt littering compared to the control sites. The ownership intervention was the most effective. All interventions remained effective after three months, except for the enforcement intervention. This experiment led to the development of NSW anti-littering guidelines, as well as development of an assessment tool called the Butt Litter Check. It also informed the creation of the Cigarette Butt Litter Prevention Program, which aims to reduce the butt littering rate by 50% by 2030.

## Key steps for successful experiments



### ✓ Collaborate with local delivery partners.

EPA collaborated with 16 local councils. This collaboration ensured that the interventions were relevant, addressed local challenges and managed risks.

**Consider co-designing a program logic with on-the-ground delivery partners to foster buy-in and overcome challenges to implementation.**

### ✓ Build on previous knowledge.

EPA developed evidence-based litter prevention interventions that were based on existing research on the drivers of littering behaviour and the effectiveness of litter prevention activities.

**Test and build on existing research to design interventions that effectively address the root causes of specific issues.**

## Addressing partner resource constraints

Councils faced resource constraints. Factors that helped them overcome these included: officer support, assistance with approvals and processes, provision of EPA collateral, and demonstrated effectiveness and cost savings through the EPA methodology.

## Overcoming risk aversion

Stakeholders expressed concern about creating smoking areas as part of the trial. The EPA engaged extensively with councils and with NSW Health, ensuring that such concerns were heard and addressed.

Want more regulatory experimentation resources?  
Go to [productivity.nsw.gov.au/regulatory-policy](https://productivity.nsw.gov.au/regulatory-policy)

Want help designing your own experiment?  
Go to [productivity.nsw.gov.au/contact-us](https://productivity.nsw.gov.au/contact-us)