



Gillies Range Road Litter and Illegal Dumping Prevention Project Report

January 2020

**Department of
Environment and Science**



- ▶ see it
- ▶ report it
- ▶ stop it

Prepared by: Office of Resource Recovery, Department of Environment and Science

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This report

This report summarises the Gillies Range Road Litter and Illegal Dumping Prevention Project (the project) delivered by the Department of Environment and Science (DES), in conjunction with key stakeholders. The project aimed to address littering and illegal dumping along roadways and in natural areas and the behaviours associated with this issue.

The project was implemented with the support, expertise and advice from a range of government and community stakeholders, including:

- Queensland Government departments and authorities:
 - Department of Environment and Science (DES)
 - Wet Tropics Management Authority (WTMA)
 - Department of Transport and Main Roads (DTMR)
- Local government:
 - Cairns Regional Council (CRC)
 - Tablelands Regional Council (TRC)
- Terrain NRM
- Tablelands community members.

The problem

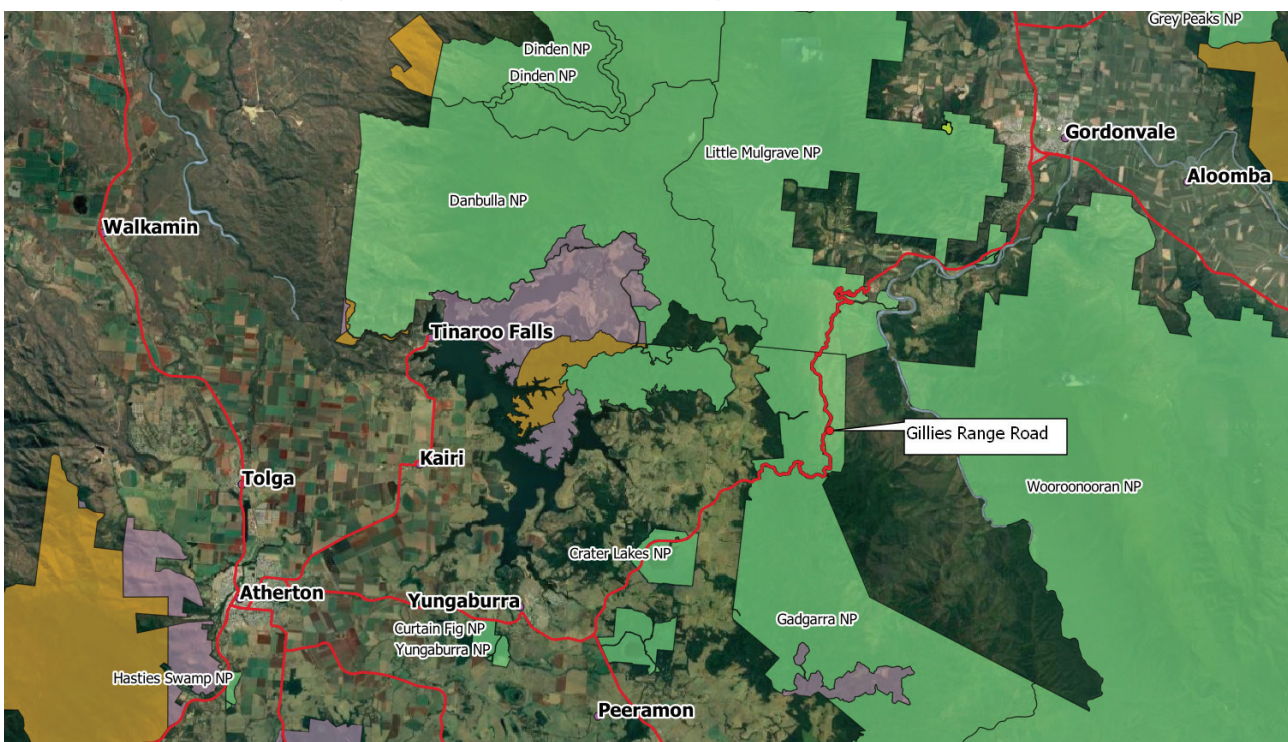
Littering and illegal dumping along Queensland's highways and in our natural areas is an ongoing issue. It adversely affects our community through unsightly aesthetics, high clean-up costs, has detrimental impacts on our environment, wildlife and human health and can encourage other antisocial behaviours. While littering and illegal dumping may have similar outcomes environmentally, from a behavioural point of view they are two very different activities. Each having their own barriers and motivators and requiring different approaches to management and intervention.

The project aimed to reduce littering and illegal dumping behaviours long-term along the Gillies Range Road using the techniques developed for the *South West Region Roadside Litter Prevention Pilot Project* (the South West project) and the *Beerburrum Forest area pilot project—Reducing illegal dumping in natural areas* (the Beerburrum Forest project).

Gillies Range Road is located between Cairns and Atherton in Far North Queensland. The road is 19 kilometres long and is well known for its 263 corners and the 800 metre elevation change. These aspects contribute to limited visibility of travellers, so waste can quickly be thrown out of a car window or dumped with no potential witnesses. The road travels through national parks, forest reserves and the Wet Tropics of Queensland World Heritage area and has diverse rainforests, sclerophyll forests and riparian areas adjoining the road.

Due to the high risks of accessing the roadsides, local community are unable to obtain approvals to undertake activities such as clean-ups. This often means that littered and illegal dumped wastes are left to accumulate until actioned by a road maintenance crew.

Map 1: Gillies Range Road location and protected area tenure



The objective

The project's objective was to reduce the number of instances, costs and the environmental impact of littering and illegal dumping along the Gillies Range Road. The purpose was also to empower people to take action by reporting those who choose to litter and illegally dump their waste.

This involved raising awareness of the littering and illegal dumping issues and the resulting negative effects on the environment. The focus was to effectively engage and motivate surrounding communities and road users to love where they live and dispose of their rubbish correctly.

Limitations

This project relied on the learnings and strategies used in the South West and Beerburrum Forest projects. These projects were assessed and evaluated using itemised data collection, market research, attitudinal and observational surveys to determine the impact of waste on the environment and effects on public awareness. Alternative methods were used to evaluate the outcomes of this project due to resource limitations and risks posed by the location. Flexibility and further project development were required during the life of the project, due to an unforeseen extension to project timeframes.

Information used for project evaluation included data from:

- Reports of littering and illegal dumping to DES and CRC
- Social media hosted survey
- Social media analytics
- Records of community engagement
- Media reporting
- Observations of illegal dumping in the area
- Community facilitated attitudinal survey.

Project design and delivery

The issues along Gillies Range Road was brought to the attention of the DES in 2017, following reports by community members and local members of parliament. DES facilitated a partnership with regional stakeholders to deliver a multifaceted behaviour change project.

Implementation of a behaviour change project involves selecting the behaviours to be targeted, identifying the barriers and benefits to implement the optimal behaviour, developing intervention strategies, implementation and evaluating the outcomes of the interventions.

Through engagement workshops an action plan was developed in consultation with all stakeholders, including a workshop held in Cairns in March 2018. The action plan detailed each intervention method to be implemented and governance of each stakeholder's responsibilities and timeframes. In addition a communication strategy was prepared to guide the communication objectives, key messages and strategies ensuring coordinated and consistent messaging and channels were used.

1. Understanding the problem

1.1 Attitudinal survey

A Facebook-hosted survey was conducted in August 2018. The survey aimed to capture a summary of the awareness and knowledge of litter and illegal dumping issues in the region. The post was boosted to the towns and suburbs that surround the Gillies Range Road. In total 486 respondents were from Queensland and 36 were from the target area.

Key findings from the survey:

Survey question	Cairns/Tablelands	Queensland
Believed that littering was a problem in their area	83%	88%
Had never thrown rubbish from their car	97%	96%
Keeping roadsides litter free was important to them	91%	95%
Were likely to report littering they witnessed from a car	53%	51%
Thought it was likely that litterers would get fined	19%	16%
Knew they could report littering to DES	22%	35%

A limitation and potential bias of this survey was that it relied on interested individuals taking part, potentially those with greater personal commitments to environmental issues. Though the sample size for the target area was relatively small, the responses were similar to the whole-of-Queensland responses.

1.2 Community attitudinal surveys

Attitudinal surveys were conducted by volunteers organised by the School for Field Studies. Surveys were conducted before and during implementation of the project and the results were reported as combined data.

The attitudinal survey confirmed what was found in the South West project—that respondents believed locals were the group most likely to litter roadsides. Respondents thought that providing more bins, advertising, education, penalties and keeping areas well maintained and clean were effective ways to stop littering on roadsides.

1.3 Illegal dumping survey

Information was gathered from unofficial pullover areas or lookout viewing sites along the Gillies Range Road prior to the commencement of the project. A total of 17 sites were noted as having litter or illegally dumped waste present. The waste was either on the pullover itself or down slope into the forest adjoining the road, where it was not visible to passing drivers. The waste included whitegoods, cars, motorised scooters, car tyres, mattresses, plastic tubs/buckets, cardboard, metal drums and general waste. It was noted there was also general litter, typically beverage containers, in gutters along the road.

2. Implementation

2.1 Stakeholders

Integral to the overall success of this project was the relationship between DES and stakeholders. While DES provided project management, development and resources there was additional resources and support provided by several stakeholders to implement the following components:

- Community engagement—all stakeholders
- Sign installation—DTMR and Queensland Parks and Wildlife Service (QPWS)
- Clean up—DTMR and contractors
- Surveillance—QPWS
- Media and stakeholder launch events—all stakeholders
- Social media—all stakeholders
- Surveys—community members

Various local businesses, media, tourism and local community groups also helped promote and support the project.

2.2 Messaging and materials

The primary target audience for this campaign was people who choose to knowingly litter or illegally dump waste. The secondary target audience was community members who may witness someone littering or illegally dumping their waste and could potentially report those offences. As littering and illegal dumping involve different motivations and barriers the campaign messaging was tailored to suit each behaviour.

Behaviourally, littering is generally the discarding of items by an individual travelling through an environment whilst undertaking other activities. This may take several forms from inadvertently leaving waste behind, wedging it into the surrounding environment or throwing rubbish out of a car window. Barriers to a person disposing of waste correctly, instead of littering, include a lack of infrastructure, laziness, inconvenience, forgetfulness or presence of other litter at a location (Curnow and Spehr, 2005).

Illegal dumping is the disposal of waste in a place without the consent of the landholder. This can cover numerous behaviours from the active collection and transportation of material to a specific location, placing waste on council kerbside land, or leaving materials outside charity shops or donation bins. Lack of awareness of waste collection and disposal facilities, lack of awareness of the impact on the environment or lack of knowledge that depositing waste in these situations is illegal, combined with the low perception that they will be caught, create opportunities for illegal dumping (New South Wales Environmental Protection Authority, 2015). The act of illegally dumping waste in forest areas may be spur-of-moment rather than habitual behaviour (Enhance Research, 2015).

Key messages from the Communication Strategy included:

- Litter and illegally dumped waste attracts native wildlife to the road, where they can be hit or cause accidents.
- Litter dropped along Gillies Range Road can end up in our Great Barrier Reef, and causes great harm along the journey.
- Lots of people think that if it's green, it's good to go anywhere—but, garden waste can transport pests, like yellow crazy ants, into areas where they devastate the environment and agriculture.
- Doing the right thing is easy—you contribute to a clean Queensland by keeping your rubbish in the car until you reach a bin.
- If you see someone littering or illegally dumping from a vehicle or vessel report them at www.qld.gov.au/litter.

Based on the successful outcomes of the South West and Beerburrum Forest projects, materials were developed and distributed including:

- Factsheets, brochure and business posters
- Print advertisements
- Radio advertisements
- Littering and illegal dumping reporting notebooks
- Display banners and signs for local events
- Roadside signs
- Roadside (electronic) variable message signs
- Newsletter, social and website content, images and social media tiles were also provided to stakeholders to share through their networks.

2. Implementation

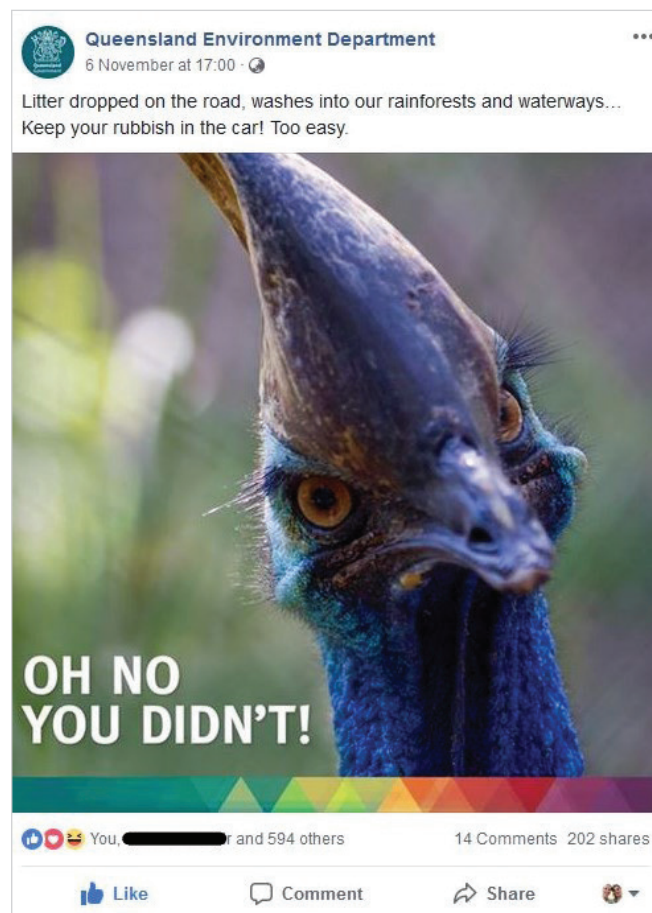
2.3 Advertising

Social media campaign

Commencing on 6 November 2018 a social media campaign was run over a six-month period. Posts on the DES Facebook page were boosted to appear in the Gillies Range Road region in a 40 kilometre radius from Atherton, Yungaburra and Cairns. An Instagram advertising schedule was also run from 6 February to 30 June 2019 targeting the same area.

Facebook posts were to the DES Facebook page and also via shares or stand-alone posts by stakeholders and numerous other interested groups. The campaign was adjusted over the six-month period with content refined or new images used to show works occurring to clean-up the Gillies Range Road area.

Image: Facebook example post



Print advertisements

Newspaper advertisements were placed on a monthly basis over the six-month period in the Mareeba and Atherton Express, the Atherton Tablelander and the Cairns Post.

Images: Print advertisements

Advertising



Please keep your rubbish to yourself...

Doing the right thing is so easy...
Keep your rubbish in the car until you get to a bin
Report those who don't at www.qld.gov.au/litter

Logos: TRC (Tablelands Regional Council), terrain (Natural Resource Management), WET TROPICS (Management Authority), Cairns Regional Council, Queensland Government.

Authorised by the Queensland Government, William Street, Brisbane.

Advertising



Whaaaaaat, people still litter!?

Doing the right thing is so easy...
Keep your rubbish in the car until you get to a bin
Report those who don't at www.qld.gov.au/litter

Logos: TRC (Tablelands Regional Council), terrain (Natural Resource Management), WET TROPICS (Management Authority), Cairns Regional Council, Queensland Government.

Authorised by the Queensland Government, William Street, Brisbane.

Radio advertisements

Four radio advertisements were developed. Topics included a discussion of someone receiving a fine, litter being found while fishing, garden and organic waste disposal, and encouraging reporting. These ads were played on local radio stations Tablelands 4AM, Tablelands Hit FM, Cairns Triple M and Cairns Hit FM on weekends over the six-month period.

2. Implementation

2.4 Signage

Sign designs

Sign designs were developed using insights from the Beerburrum Forest project. A sign specific to the Tablelands area, with the image of a Lumholtz's tree-kangaroo, was also developed to target the local region. In total, 12 signs (4 Owl, 2 Caught, 2 Surveillance and 4 Tree-kangaroo) were produced at the 1.5m x 0.9m size.

In the Gillies Range Road area two Owl, one Caught, one Surveillance and two Tree-kangaroo signs were installed. The Owl, Caught and Surveillance signs are designed to target those people considering doing the wrong thing and the Tree-kangaroo sign is targeted towards those who choose to do the right thing and may be able to report an incident. Map 3 displays the locations where the signs were installed along the range.

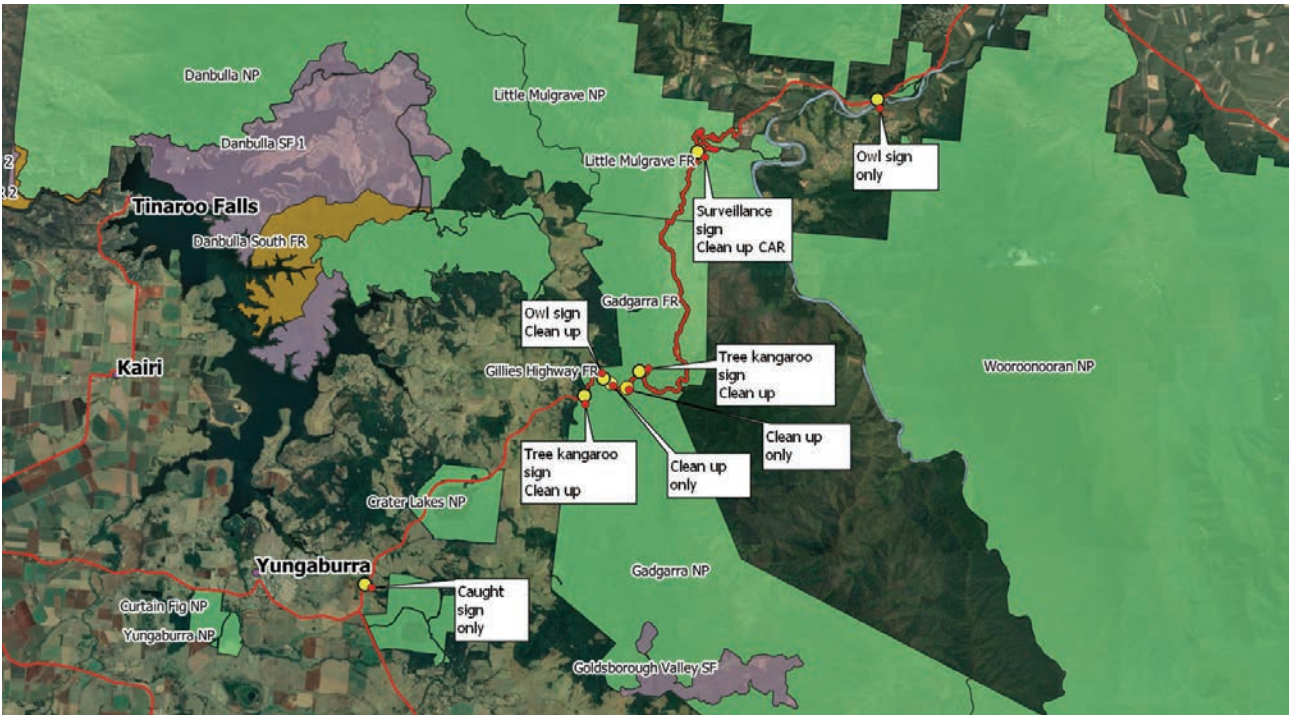
In addition, two signs (Owl and Tree-Kangaroo) were installed at Wongabel State Forest where littering and illegal dumping issues had been raised by QPWS rangers. A Tree-kangaroo sign was also installed at Lake Eacham, within Crater Lake National Park, to raise awareness at this high frequency tourist site.

Three remaining signs were provided to QPWS Paluma Range base to install in the Clements State Forest and Paluma Range National Park areas where they had requested assistance with reducing illegal dumping.

Images: Roadside signage designs (Top left clockwise: Owl, Caught, Tree Kangaroo and Surveillance)



Map 2: Sign and clean up locations along Gillies Range Road.



Photos: Wongabel State Forest signs



Thank you: parking area



Owl: track through forest



Thank you: Gillies Range Road pullover 60km/hour road



Owl: Gillies Range Road Little Mulgrave 100km/hour road

2. Implementation



You will be caught: GRR Lake Eacham



Surveillance: Robson's track lookout pullover

DTMR variable message sign messages

Across Queensland, from October 2018 to March 2019, DTMR promoted littering and illegal dumping messages on their variable message signs when there was a space in the messaging schedule and during off-peak times. These large digital signs were positioned above major highways. The messages included:

- Report Illegal Dumping qld.gov.au/litter
- Love Qld Report Littering qld.gov.au/litter
- Illegal Dumping Fines Apply qld.gov.au/litter
- Thank you For Not Littering Keep Qld Clean

Photos: Variable message signs with messages as taken by car passenger



Foam board signs

The roadside sign designs were also printed on foam board for use at the stakeholder launch event. Two copies each of the Owl and the Tree-kangaroo signs were printed in the 1m x 0.6m size. These were used for photos at the stakeholder event, one Tree-kangaroo sign was given to Tablelands Regional Council, two to DES community engagement staff in Cairns and one to WTMA. These were displayed in local council customer service centres, tourism information centres and at local events.

2.5 Print collateral

Posters

Two posters were developed for display in tourist information centres and local businesses. A print run of 250 of each poster was completed and the posters were distributed by DES and community members to all stakeholders, local members and councillors, tourism information centres, businesses and cafes.

Images: Support the Gillies Range and Cassowary poster designs



2. Implementation

Fact sheets

Two fact sheets about littering and illegal dumping were made available on DES's website.

Images: Two A4 fact sheets



Got waste? Take it to the tip!

What is illegal dumping?
In Queensland, the unlawful deposit of any amount of waste is an offence and penalties apply. Illegal dumping is the unlawful disposal of any type of waste material that is 200 litres or more in volume (about the volume of a wheelie bin). Illegal dumping can occur in many areas including:

- bushland, parks and forests
- roadsides
- outside of charity bins and shops
- on the kerbside (outside of collection time)

Common illegally dumped items include:

- household rubbish and garden waste
- household goods (such as whitegoods, TVs, mattresses and furniture)
- building waste (construction and demolition materials)
- tyres, chemical drums and paint tins
- asbestos.

Dumping is damaging Queensland
Illegal dumping is a serious issue. It damages our environment, and affects the use, enjoyment, and value of our public spaces. It also costs millions of dollars each year in clean-up expenses, money that could go to important community services and amenities. Dumping green waste and soil can also introduce invasive pests and weeds, and increase the risk of wildfires.

Fines for illegal dumping
Most Queenslanders agree it's not OK to use our community as a dumpsite! Unfortunately, a small number of people are spoiling our natural areas for everyone else. Illegal dumping is a crime and you can be reported and fined.

FINES START AT OVER \$2,000 FOR AN INDIVIDUAL AND \$6,500 FOR A CORPORATION.

Take your rubbish to the tip!
Check out your local council website for information on your nearest landfill or waste transfer station, the opening hours, tipping costs and items that you can tip for free, including green waste.

Report dumping
Doing the right thing is easy. You can report illegal dumping at www.qld.gov.au/litter, by pinning the location and uploading photos. Make sure you get as many details as you can, including:

- time, date, place and description of waste
- vehicle registration number, make/model, colour or features
- description of the person (including location in vehicle, clothing, gender).

If it is safe, take photos, but for your own safety don't approach the person depositing the waste.

▶ see it
▶ report it
▶ stop it
www.qld.gov.au/litter

Queensland Government



Got litter? Put it in the bin!

What is litter?
In Queensland, the unlawful deposit of any amount of waste is an offence and penalties apply. Littering is the unlawful disposal of any type of waste material that is less than 200 litres in volume (about the volume of a wheelie bin).
Each year, thousands of tonnes of rubbish is littered in Queensland.
It can be anything from an apple core, cigarette butt, drink container or food wrappers to household items, such as a small appliance, chair or bags of clothing.

Littering is serious, unhealthy, unsightly and unsafe
Litter dropped in streets, along the side of the road, or in bushland can be washed or blown into creeks and rivers—polluting land, waterways and ocean environments.
It can cause great harm and suffering to the animals that get entangled in the waste and by ingesting the littered items. Food wastes on roadsides can attract animals to busy roads increasing the danger to both drivers and the animals.
Dangerous littering is litter that causes, or is likely to cause, harm to a person, property or the environment. This may include throwing a lit cigarette butt into bushland, leaving a hypodermic needle in a park, or smashing a glass bottle on a footpath.

How long until it's gone?

- Cigarette Butts**
up to 12 years*
- Glass bottle**
1 million years
- Aluminum can**
200 years
- Plastic Bottle**
450 years**

*The cellulose acetate (plastic) in filters never truly breaks down and remains in the environment forever.
** Petrochemical (plastic) products never truly breakdown and remains in the environment forever.

It's easy to help!
There's two simple ways you can help reduce litter on Queensland roads.

- Keep your rubbish with you, until you can find a bin.
- If you see someone littering, report them!

Every person is responsible for their own rubbish.
LITTERING IS A SERIOUS OFFENCE. FINES START AT \$260.

Report littering
If you see someone littering from a motor vehicle, trailer or vessel you can report them at www.qld.gov.au/litter.
You can report it as you see it occurring, upload photos and pin the location.
Make sure you get as many details as you can, including:

- time, date, place and description of litter
- registration number, make/model, colours, or distinguishing features of vehicle
- description of the person making the offence (including location in vehicle, clothing, gender).

Remember it is illegal to use your mobile phone while driving and for your own safety do not approach the person depositing the waste.

▶ see it
▶ report it
▶ stop it
www.qld.gov.au/litter

Queensland Government

Littering and illegal dumping reporting notebook

The littering and illegal dumping reporting notebook can be kept in the car and used as a reminder to take note of littering incidents. The record can be retained by the reporter once the incident is reported to the **Litter and Illegal Dumping Online Reporting System**. There were 1500 reporting notebooks printed for use in this project and for distribution across the state. These were provided to all stakeholders and to tourist information centres and were handed out at Cairns EcoFiesta by DES staff.

Image (right): Litter and illegal dumping reporting notebook cover page



2. Implementation

Litter and illegal dumping brochure

The litter and illegal dumping brochure was provided to stakeholders and distributed at council customer service and tourist information centres, and at events.

Images: Litter and illegal dumping brochure

We all love Queensland, let's keep it clean

What do I report?

When reporting it is important that you take down as many details as possible. This includes:

- Time and date
- Place and address
- Description of the waste
- Vehicle/vessel registration number
- Make and model of the vehicle/vessel
- Colour of the vehicle/vessel
- Distinguishing features of the vehicle/vessel (stickers, dented panels, modifications)
- Description of the person (including location in the vehicle, clothing and gender)

The Queensland Government can issue an infringement notice to the registered owner of a vehicle/vessel based on your report. In order to submit the report you must be willing to testify in court. It should be noted that typically only a very small number of cases proceed to court.

If you discover illegal dumping in your travels, please do not disturb the site. It can hinder evidence collection and may contain hazardous materials.

Upon receiving the report, litter and illegal dumping compliance officers may contact complainants to confirm the details and obtain a witness statement. To enable this, ensure that full contact details have been included in the report. All witness details are treated confidentially.

You make a difference.



Fines

Penalties start from \$261 for littering and \$2088 for illegal dumping offences and differ for individuals and corporations. A full list of penalty amounts for littering and illegal dumping can be viewed via the website www.qld.gov.au/litter

Further information

For further information regarding littering or illegal dumping:

Website: www.qld.gov.au/litter
Phone: 13 QGOV (13 74 68)
Email: illegaldumping@des.qld.gov.au
Mail: Department of Environment and Science
 Litter and Illegal Dumping Programs
 GPO Box 2454
 Brisbane QLD 4001



▶ see it
▶ report it
▶ stop it



It's damaging Queensland

Littering and illegal dumping is a serious issue. It pollutes our environment and significantly diminishes the use, enjoyment and value of our public places for residents and tourists. It can facilitate the spread of weeds and pest species, and harm wildlife, people and livestock.

Littering and illegal dumping costs Queensland businesses and communities millions of dollars each year in waste management, including clean-up expenses. Queenslanders want and deserve a clean and safe environment with the majority saying it's not OK to use our environment as a rubbish dump.

What is littering?

Littering is the unlawful deposit of any type of waste material of an amount less than 200 litres in volume (about the volume of an average wheelite bin).

Common littered items include:

- cigarette butts
- drink containers and fast food packaging
- food scraps like apple cores
- material falling off a trailer because it was uncovered or poorly secured
- small appliances or bags of clothing
- items beside an overflowing bin.

Dangerous littering is litter that causes, or is likely to cause, harm to a person, property or the environment. This may include throwing a lit cigarette butt into bushland, leaving a syringe in a park, or smashing a glass bottle on the footpath.



How long until it's gone?

 Cigarette Butts up to 12 years*	 Aluminum can 200 years
 Glass bottle 1 million years	 Plastic Bottle 450 years**

*The cellulose acetate (plastic) in filters never truly breaks down and remains in the environment forever.
 ** Petrochemical (plastic) products never truly breakdown and remain in the environment forever.

What is illegal dumping?

Illegal dumping is the unlawful disposal of any type of waste material of an amount of 200 litres in volume or more.

Illegal dumping can occur in many areas including:

- bushland, parks and forests
- roadsides
- outside of charity bins and shops
- on the kerbside (outside of collection time).

Common illegally dumped items include:

- household rubbish and green waste
- household goods (such as whitegoods, TVs, mattresses and furniture)
- building waste (construction and demolition materials)
- tyres, chemical drums and paint tins
- asbestos.

Let's work together

The Queensland Government works closely with local governments, the community, and non-for-profit and industry groups to develop programs and compliance actions targeting littering and illegal dumping issues in Queensland.

However everyone can help encourage people to dispose of their waste responsibly. Most people do the right thing by holding onto their rubbish until they can access a bin, or by using their local council waste transfer station. Check out your local council website for information on your nearest landfill or waste transfer station, the opening hours, tipping costs and items that you can tip for free, including green waste.

The *Waste Reduction and Recycling Act 2012* contains provisions specifically allowing members of the public to do their part by reporting littering and illegal dumping offences to the Queensland Government.

How can I report?

Doing the right thing is easy. If you witness someone littering from a vehicle, trailer or vessel you can report them online at www.qld.gov.au/litter or phone 13 QGOV (13 74 68) for a reporting form.

If you find illegally dumped material you can report it to your local council office or online at www.qld.gov.au/litter, or phone 13 QGOV (13 74 68) or by emailing illegaldumping@des.qld.gov.au



▶ see it
▶ report it
▶ stop it

Please remember it is illegal to use your mobile phone while driving. The best way to record information is to utilise passengers and dash cams or safely pull over and take down the details of what you saw.

For your own safety, under no circumstance approach the person depositing the waste.

2.6 Clean-up along Gillies Range Road

In November and December 2018, DTMR was contracted to coordinate the clean-up of illegally dumped waste along the Gillies Range Road. Eight sites were identified as potential clean-up locations. Within the scope and resources of this project it was determined that rubbish removal could occur at four sites, one of which would be the location of the project's launch.

2.7 Camera surveillance

QPWS installed remote surveillance cameras at a site on the Atherton Tablelands during the project to monitor littering and illegal dumping. The site had been noted as having illegally dumped waste in parking areas and litter left at visitor use locations, though no quantitative data had been recorded regarding the extent.

2. Implementation

2.8 Project launch

Media launch

On 6 December 2018, the project was launched by the Honourable Curtis Pitt, Speaker of the Queensland Parliament and Member for Mulgrave, on behalf of the Honourable Leeanne Enoch, Minister for Environment and the Great Barrier Reef, Minister for Science and Minister for the Arts at Robson's Track Lookout. The event was also attended by Councillor Joe Paronella, Mayor Tablelands Regional Council, Councillor Brett Moller, Cairns Regional Council and Scott Buchanan, Executive Director, Wet Tropics Management Authority.

Each dignitary spoke to journalists from news channels Seven, WIN and Nine regarding the project and the impacts of littering and illegal dumping. Following these remarks journalists had the opportunity to ask questions about the information provided.

DTMR and Roadtek retrieved an illegally dumped vehicle out of the forest as part of this media opportunity.

Channels Seven, WIN and Nine ran evening news stories and photos were provided to *The Cairns Post* for subsequent articles. These stories particularly focused on the use of surveillance cameras to catch litterers and illegal dumpers in the area. The use of the phrase 'increased surveillance' applied to use of cameras and increased awareness of witnesses to reporting littering and illegal dumping to DES.

Photo: Illegally dumped vehicle being winched out of the forest and removed



Stakeholder launch event

Following the media launch representatives from the stakeholder organisations and the local community met at Lake Eacham within the Crater Lakes National Park to celebrate the launch of the project. Joe Paronella, Major of Tablelands Regional Council attended the event to congratulate all those involved.

2.9 Community engagement

Over 40 organisations, businesses and community groups were contacted regarding the project and provided with both printed and online resources. In addition to advertising, social media and online content, community engagement activities included attending local events and approaching businesses in Atherton, Yungaburra, Lake Eacham and Malanda to display the posters as a sign of community support.

An overview of the project was presented at the February 2019 meeting of the Local Authority Waste Management Advisory Committee, where 22 local councils and industry groups are represented. This provided an opportunity to share the intent and material developed for the project with a wider audience.

Organisations or businesses engaged included:

- Local Authority Waste Management Advisory Committee
- Far North Queensland Regional Organisations of Councils
- Walking clubs
- Supermarkets
- Cafes and takeaway shops
- Environmental and landcare groups
- Tourist information centres
- Mareeba Shire Council

3. Results

3.1 Clean-up outcomes

In total over eight tonnes of waste, three cars and a truckload of tyres were removed from the edges of the Gillies Range Road at the four chosen locations, plus two additional sites that were cleaned up while staff and equipment were on-site nearby. Observations of the areas over the following three-month period, indicated that new illegal dumping consisted of only small amounts of green waste and a large flower pot.

Limitations

The illegally dumped waste was disposed of down steep road verges into the forests (adjoining Little Mulgrave and Gadgarra National Parks). The angle of this slope was significant and vegetation such as wait-a-while vine makes working in this environment difficult. Roadtek used large machinery, requiring traffic control to remove the waste.

Communities clean-ups were not permitted along Gillies Range Road for safety reasons. The lack of visibility, lack of road verge, slope, tree falls and other issues mean that community clean-ups along the Gillies Range Road would risk the safety of those participating in the clean-up and also other road users. Similarly, Clean Up Australia Day do not allow registration of sites along arterial roads, highways and motorways due to safety risks.

Photos: Examples of clean-up activities, machinery used and waste removed along the Gillies Range Road



3.2 Sign installation

The roadside signs were installed at Wongabel State Forest in November 2018 and along the Gillies Range Road in December 2018. Sign location installation was determined by DES and DTMR.

A key learning from the sign installation was that onsite viewing of installation locations was required. It was expected that the signs would be installed on pullover areas, slightly facing away from the road to reduce distractions and mainly be read by pullover users (potential illegal dumpers). However, while some signs were placed at pullover locations, others were installed as roadside signs on 100 km/hour sections of road.

Many factors need to be considered for each location including sign size, position on the road verge and passing traffic speed, text and colour.

The impact of featuring local species in signage and its ability to grab attention was a useful tool in being able to communicate the message. Acknowledging those members of the public who are doing the right thing was also an important learning.

3.3 Litter and Illegal Dumping Online Reporting System

DES receives reports from members of the public regarding littering and illegal dumping offences.

The Litter and Illegal Dumping Online Reporting System (LIDORS) predominately receives littering reports and direct illegal dumping reports are received via LIDORS, a telephone and email. LIDORS reporting since the commencement of the *Waste Reduction and Recycling Act 2011* has generally increased state-wide each year.

There was a 25% increase in reports to LIDORS in the six-month period, in the Tablelands and Cairns area, compared to the six months prior to the campaign. In addition, there was a 37% increase in the number of littering penalty infringement notices (PINs) issued.

3. Results

Tables(a) and (b): Evaluation of Litter and Illegal Dumping Reporting Online System reports for each council area

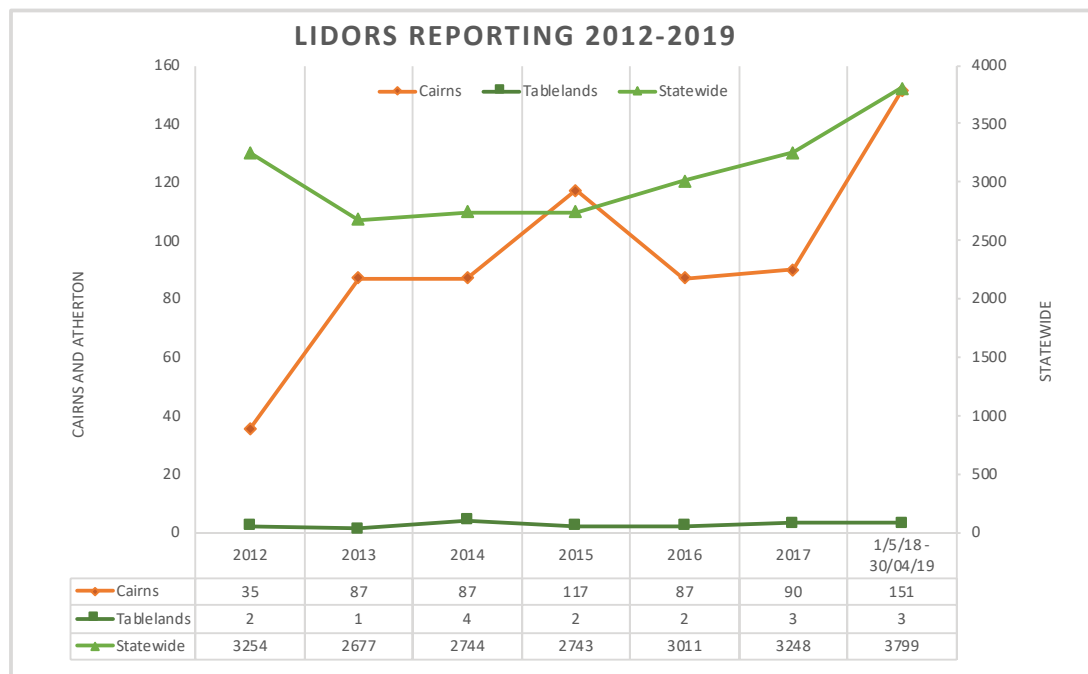
(a) Cairns Regional Council

Cairns Regional Council	01.05.18 to 30.10.18	01.11.18 to 30.04.19	% change
Number of litter and illegal dumping reports	66	85	22%
Number of vehicle related littering PINS issued	44	68	35%

(b) Tablelands Regional Council

Tablelands Regional Council	01.05.18 to 30.10.18	01.11.18 to 30.04.19
Number of reports	0	3
Number of PINS issued	0	2

Chart 1: Litter and Illegal Dumping Reporting Online System reports for each council area compared to state-wide trend for calendar years 2012–17 and for the full year including six months of the Gillies Range Road interventions



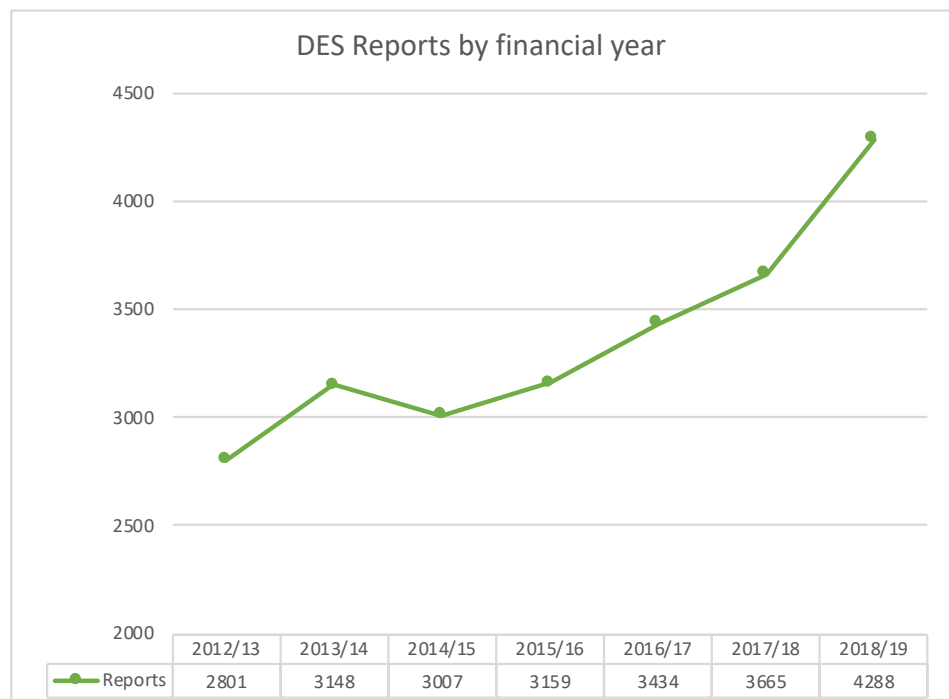
3.4 All reports of littering and illegal dumping to DES

The reach of the project campaign was not limited to the Cairns and Atherton region. Campaign messages via Facebook and DTMR variable message signs were displayed state-wide. These areas also attract a high level of tourism; therefore, the messaging is likely to have been seen by people returning to other areas of Queensland.

The total number of littering and illegal dumping reports to DES from LIDORS and other direct report methods was assessed against the previous six financial year reporting periods. There was a significant increase of 14.7% in reporting compared to the previous year and the general trend of smaller increases in reporting over the last six years. The three years prior to this campaign saw increases of 4.8%, 8.0% and 6.3% respectively.

In the 2015–16 financial year, the South West project ran radio ads, social media and other promotional activities in the local council areas for Toowoomba, Western Downs, Southern Downs, Balonne, Maranoa and Goondiwindi. There was a recorded increase in reporting within the campaign target area for the South West project, however it did not result in an increase in reporting to LIDORS outside of the target area during the campaign period.

Chart 2. DES littering and illegal dumping reports.



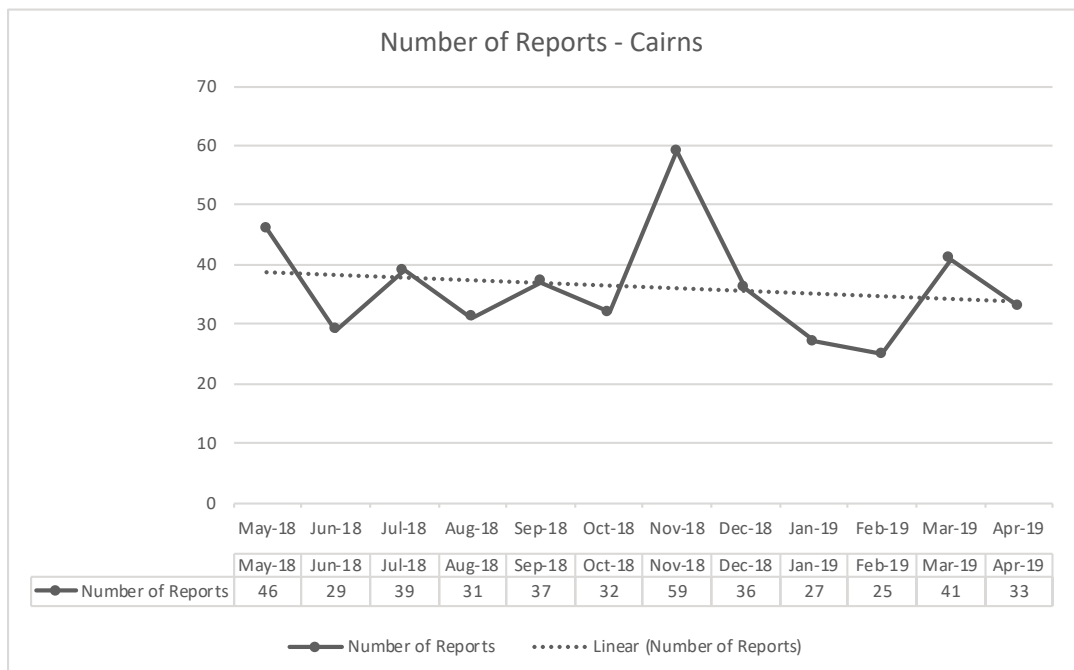
3. Results

3.5 Evaluation of local government reports

Tablelands Regional Council area saw no noticeable change in the level of reporting of illegal dumping on the Tablelands by the public.

Cairns Regional Council reported a slight increase in reporting of illegal dumping during the six-month campaign period compared to the preceding six months (214 to 221). Overall for the year the trend showed a decreasing number of reports.

Chart 3: Number of illegal dumping service requests to Cairns Regional Council.



3.6 Evaluation of engagement

Facebook analytics

In the six months of the Facebook campaign 21 posts were published, consisting of seven videos and 14 photos. The campaign reached over 180,000 people (reach may include the same person more than once). The DES Facebook page had 18,006 likes at the start of the campaign rising to 20,422 at the end of the campaign. The organic reach, created by people commenting, liking and sharing posts, showed that the messages resonated with the audience.

Along with other organisations sharing DES’s posts, there were standalone posts from Tablelands Regional Council, Wet Tropics Management Authority, Councillor Brett Moller, Councillor Richie Bates, Cairns Community, Food works Yungaburra, Terrain NRM, Wait a While Rainforest Tours, Queensland Trust for Nature, No Waste No Worries, Tropical Tablelands Tourism and Malanda Falls Visitor Centre and Mayor Joe Paronella.

Table 3: Project social media campaign Facebook statistics

Topic	Total numbers
Total reach	183,573
Organic reach	115,230
Paid reach (Cairns and Atherton areas)	73,193
Engaged users	13,073
Post shares	1,242
Post likes	5,750
Post comments	475

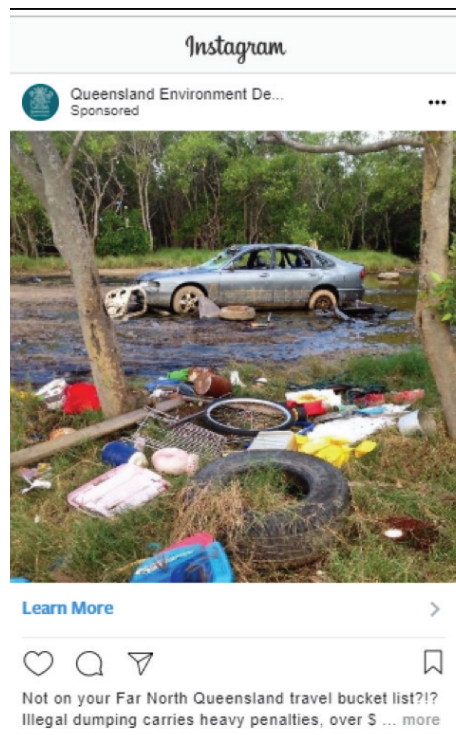
Instagram analytics

There were 11 Instagram posts published. Nine of these posts were boosted to the campaign area and the last two posts were published state-wide as the campaign period had ended.

Table 4: Project social media campaign Instagram statistics

Topic	Number
Total reach (total unique accounts)	184,295
Average ad recall lift per post—the estimated number of people likely to recall the ad (data only provided for four posts)	407.5
Average link click through per post (data only provided for four posts)	13

Image: Instagram content



3. Results

3.7 Attitudinal survey—post implementation

An online Facebook survey was conducted in May 2019. The post was boosted to the area around Gillies Range Road. A total of 89 responses were received from Queensland, with 11 respondents from the target area compared to the Facebook survey prior to implementation with 486 responses from Queensland. It is unknown why the two surveys achieved such differing levels of response considering they were boosted at the same level.

Of all Queensland respondents, 44.9% had noticed aspects of the campaign, with roadside signs and Facebook posts being the most common answer. This may have been due to people travelling in the area over the campaign period, and social media and DTMR variable messaging signs being promoted across the state.

Key findings from the surveys (all of Queensland)

Note: the findings from the respondents in the target area were not included separately due to the small sample size.

Survey question	Pre-intervention	Post intervention
Believed that littering was a problem in their area	88%	92%
Had never thrown rubbish from their car	96%	98%
Keeping roadsides litter free was important to them	95%	96%
Were likely to report littering they witnessed from a car	51%	67%
Thought it was likely that litterers would get fined	16%	6%
Knew they could report littering to DES	35%	39%

This data is from a small sample, however after the implementation of the campaign a higher percentage of respondents believed that litter was a problem in their area, would report litterers and knew that they could report to DES. However, there was a reduction in the number of respondents who thought it likely litterers would get fined.

3.8 Evaluation of camera surveillance

Remote cameras were installed in forest areas on the Atherton Tablelands for six weeks during the campaign period with no reported incidents of dumping. During this time, one camera was stolen and was reported to the police.

4. Conclusion

Gillies Range Road winds its way through the Wet Tropics of Queensland World Heritage Area, an area of international environmental significance, that is adjacent to one of the world's greatest natural assets, the Great Barrier Reef. As such, stakeholders and the local community were passionate and committed to addressing the issues of litter and illegal dumping in the area an important component to the project's success.

The removal of over eight tonnes of waste, a truck load of tyres and three cars from the road verges along Gillies Range Road helped reduce the significant impact this waste could have on the surrounding environment.

It has been shown that the presence of waste in public places can encourage others to litter or illegally dump waste (Cialdini et al. 1990). Removing this waste, as well as awareness raising activities and roadside signage led to a reduction of illegal dumping along Gillies Range Road.

In the 2018/2019 financial year, when the Gillies Range Road campaign was running, there was a 14.7% increase in the reporting of littering and illegal dumping across Queensland to DES, a significant and unusual increase. As the reach of advertising and digital promotion for this project extended beyond the project area, it can be assumed that the campaign had some influence on this increase in reporting.

Continuing to raise awareness of the ability of the public to report to DES is crucial as there are further gains to be made, as only 39% of the public knew they could report to DES.

The 25% increase in reports to DES from the local area during the campaign period also indicates that on-ground intervention activities, raising awareness of the impacts of littering and illegal dumping, and how to report it, can achieve positive results in reducing littering and illegal dumping. Also, that the project framework would be suitable to adapt and customise to other areas in Queensland.

Where to from here?

Lessons and material from this project have been adapted so that they are suitable for use state-wide and to support the further development of behaviour change programs to reduce littering and illegal dumping. The resources are available online: www.qld.gov.au/litter.

Glossary

CRC	Cairns Regional Council
DES	Department of Environment and Science
DTMR	Department of Transport and Main Roads
QPWS	Queensland Parks and Wildlife Service
TRC	Tablelands Regional Council
WTMA	Wet Tropics Management Authority

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Litter and illegal dumping

Further information

For further information regarding littering or illegal dumping:

Website: www.qld.gov.au/litter

Phone: 13 QGOV (13 74 68)

Email: LIDUProjects@des.qld.gov.au

Mail: Department of Environment and Science
Litter and Illegal Dumping Programs
GPO Box 2454
Brisbane QLD 4001

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- ▶ see it
- ▶ report it
- ▶ stop it