Cooks River
Litter Prevention Framework

By Vanessa Bu, Ivy Liang and Nobuto Nishizawa

For the past 3 weeks we've been doing a design sprint where we developed a framework to help you guys get started with the Cooks River Litter Prevention Strategy so in 2025, we are able to see 50% less litter.
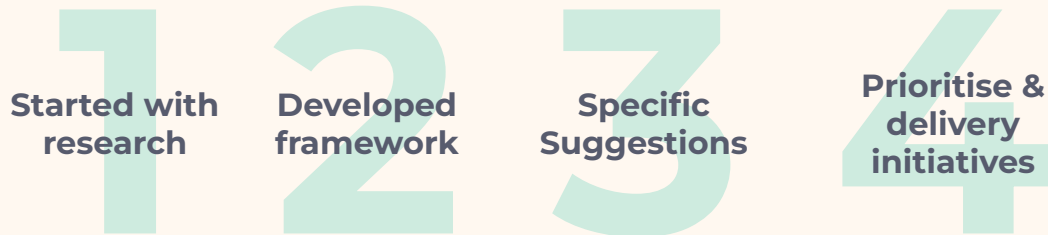
Your mission

Prevent litter

Community engagement

Long lasting change

- There's already good work going on within the community with clean ups, but you wanted to concentrate on litter prevention
- You want us to help get the community engaged
- And create long lasting change

So how do we tackle this?

1 Started with research

2 Developed framework

3 Specific Suggestions

4 Prioritise & delivery initiatives

Research we conducted

The framework we developed to drive change

Recommendations on how to do this

And how we can prioritise and deliver these initiatives

After going over the Cooks River Litter Prevention Strategy, we wanted to know what was going on around the world.

International campaigns

17 successful campaigns around the world including Europe, Americas and Asia.

8
motivated people through **community pride**

4
motivated people through **emotional messaging**

3
aimed to drive results by making the act **easy to do**

2
aimed at enforcing change through **social pressure**

Full research notes

Overall we looked into 17 campaigns and they fell into four different types of categories. They focus on community pride, emotional messaging, easy actions and social pressure.

We found out most campaigns motivate people through pride and showing their love for the local community.

What do the people think?

We received 40 survey responses.

37/40
participants

thought their neighbourhood had some to low litter.

27/40
participants

were unsure if their community was doing anything about litter.

20/40
of participants

weren't doing anything about litter and the other half did very little.

Main concern

1. Environmental damages
2. Wildlife
3. Hygiene

Full survey results

In the survey we conducted, we found that most of our participants were not aware if the council or community within that area held any litter prevention initiatives.

Half of the participants were not doing anything about the litter in their neighbourhood, however they passionately voiced their concerns on how litter affects the environment, wildlife and the overall hygiene within the community.

Framework to drive change

From our research, we designed a framework that illustrates the elements for community engagement in litter prevention.

We found that awareness, motivation and triggers are all key components that drive education and encourage long term change.

However, we found this is not a linear process and there are multiple ways this can be addressed.

We're going to be discussing each of these components - starting with motivation.

We studied some research papers to understand human motivation.

Because it's the key driver in creating long term change. We studied four ways we could encourage people to tackle litter prevention.

Motivation

Emotional engagement

Marray P 2013, How Emotions Influence What We Buy, viewed by 31th Jan 2022

It's a powerful tool that helps people to decide with their hearts and is proven to have more influence than the mind.

Out of 1,400 successful advertising campaigns, emotional content performed twice as well as rational content.

Studies show that people rely on emotions, rather than information, to make decisions. Emotional responses to marketing actually influence a person's intent and decision to buy more than the content of an ad or marketing material.

Marray P 2013, How Emotions Influence What We Buy, viewed by 31th Jan 2022

Out of 1,400 successful advertising campaigns, those with purely emotional content performed about twice as well (31% vs. 16%) as those with only rational content.

Doodly R 2005, Emotional Ads Work Best, viewed by 31th Jan 2022

Additional recourse
Hartmann P, Ibáñez VA & Sainz FJF 2005, 'Green branding effects on attitude: functional versus emotional positioning strategies'. *Marketing intelligence & planning.*

Motivation

Personal experience

Haselhuhn MP, Pope DG, Schweitzer ME & Fishman P 2012, 'The impact of personal experience on behavior: Evidence from video-rental fines'. *Management Science, 58 (1), 52-61.*

Personal experience serves a basis for reflection.

From reflections, we can develop ideas and opinions that can potentially motivate us to take action.

Personal experience is a unique way for changing behavior as it can influence seasoned individuals with prior experience. Though we found that it can decay over time, personal experience can motivate long-term behavior.

https://repository.upenn.edu/cgi/viewcontent.cgi?article=1145&context=oid_papers

Motivation

Personal benefit

May J 2011. *Psychological egoism.*

For personal benefit, sometimes we are motivated by egoistic reasons and how things will benefit us.

This can inspire people to push for better social and economic outcomes.

Motivation

Local closeness

Zero Waste Scotland N.D., Some of the Best Litter Prevention Campaigns from Around the World, viewed by 28th Jan 2022

LearnMate N.D., Social Purpose and How it Relates to Informal Language, viewed by 8th Feb 2022.

LEITHERS DON'T LITTER.

People feel more concerned by issues that feel close to home.

This can cause people to feel discomfort or upset as it touches upon sensitive or personal matters.

Local closeness brings intimacy and inclusiveness, throughout a community.

We have linked these motivation types as examples in the coming slides.

Awareness

What are some ways we can raise awareness?

How might people become aware?

Social Media

Website

Presentation

School Involvement

Workplace Involvement

Signage

Documentary

Educational Video

Posters

Brochures

Pop Up Desk

Door to Door

We come up with a lots of ideas. Here are some examples of how you might engage the community.

How might people become aware?

Social Media	Website	Online Presentation	School Involvement	Workplace Involvement	Signage
Documentary	Educational Video	Posters	Brochures	Pop Up Desk	Door to Door
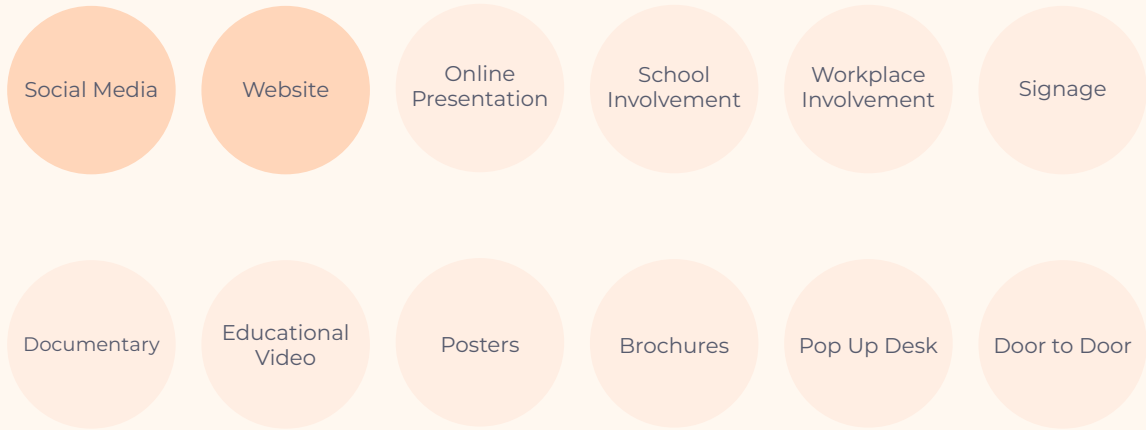
Each of these methods have different levels of engagement.

But it's fair to say that social media will have the highest visibility with relative ease and minimal expense.

We also believe that the website will become crucial in navigating your audience to stay informed and take action.

Platforms

Social media users in Australia per age group - January 2022

https://napoleoncat.com/stats/social-media-users-in-australia/2022/01/
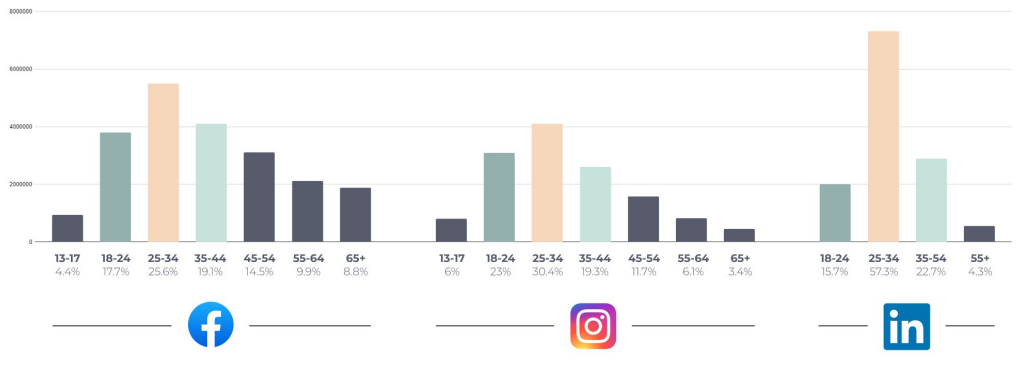
We did some research on social media platforms.

In Australia, Facebook and YouTube has the highest usage, followed by Instagram.

Different social media platforms attract different age groups, so choosing the correct platform may be more beneficial for particular campaigns.

Because LinkedIn is growing, it can be a great place to target professionals and businesses.

Statistic per social media platform

Facebook users in Australia
January 2022

👫 21 452 400

♀ **53.9%** women   ♂ **46.1%** men

Age	13-17	18-24	25-34	35-44	45-54	55-64	65+
Women	2.6%	9.3%	13.1%	10.3%	7.9%	5.6%	5.1%
Men	1.8%	8.4%	12.6%	8.9%	6.5%	4.3%	3.7%
Total	4.4%	17.7%	25.6%	19.1%	14.5%	9.9%	8.8%

Source: NapoleonCat.com

Instagram users in Australia
January 2022
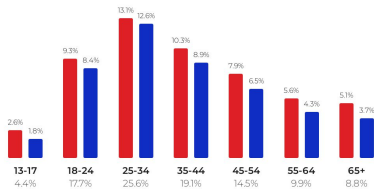
👫 13 467 900

♀ **56.4%** women   ♂ **43.6%** men
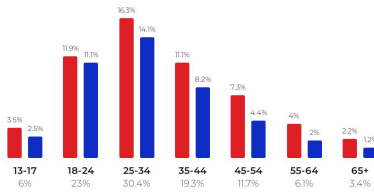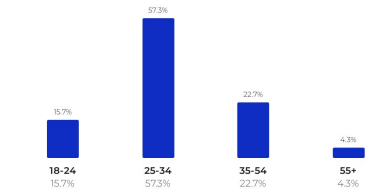
Age	13-17	18-24	25-34	35-44	45-54	55-64	65+
Women	3.5%	11.9%	16.3%	11.1%	7.3%	4%	2.2%
Men	2.5%	11.1%	14.1%	8.2%	4.4%	2%	1.2%
Total	6%	23%	30.4%	19.3%	11.7%	6.1%	3.4%

Source: NapoleonCat.com

Linkedin users in Australia
January 2022

👫 12 750 000

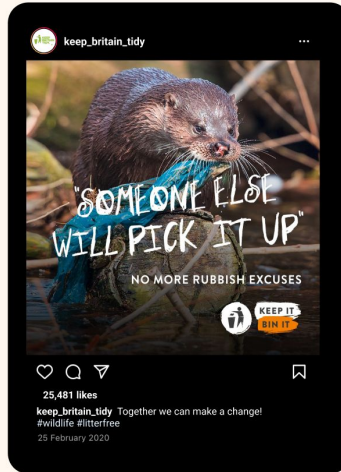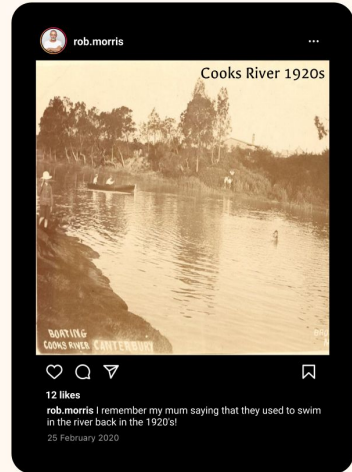| Age	18-24	25-34	35-54	55+
Value	15.7%	57.3%	22.7%	4.3%
Total	15.7%	57.3%	22.7%	4.3%

Source: NapoleonCat.com

Social media

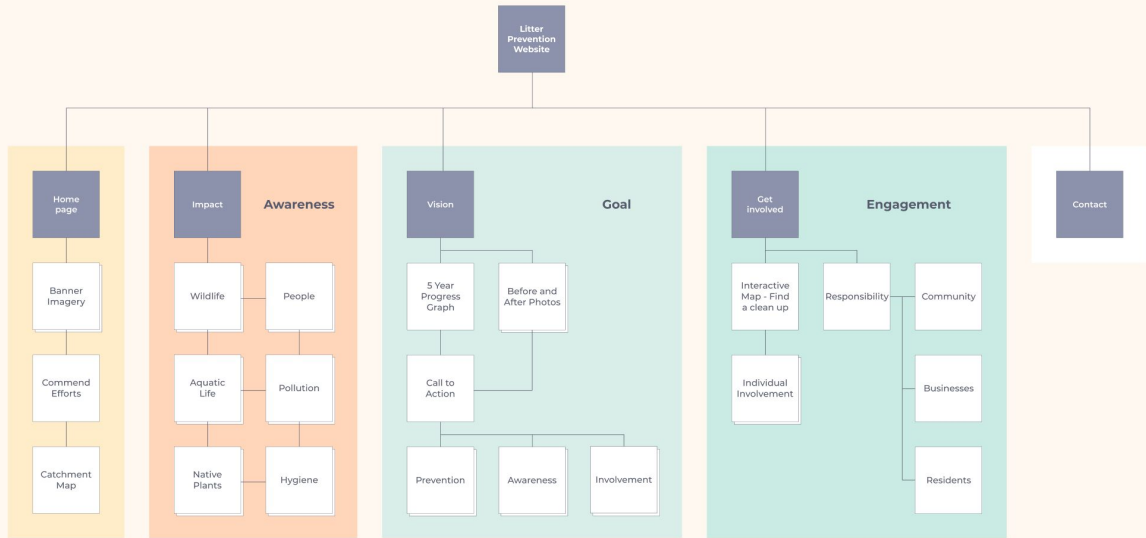**Build pride** **Evoke emotion** **Local closeness**

Thinking back to what drives motivations that we talk before.

We have created some examples of social media posts.

These examples include elements of building pride, evoking emotions and linking a sense of local closeness together with slogan and call to action.

Litter Prevention website

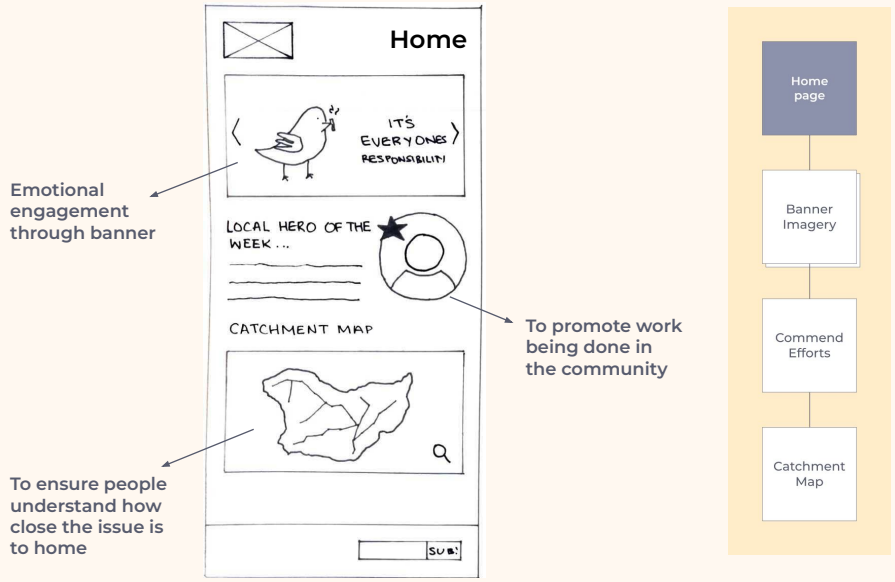We explored ideas on what the Litter Prevention website might entail.
This graph lays out the basic structure of the website.

First, we need educate people on the impact of litter to raise awareness.
Then show them the goal and overall progress made so far.
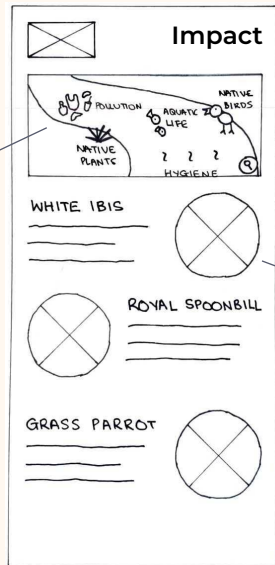Then give them an easy way to get involved.

Website

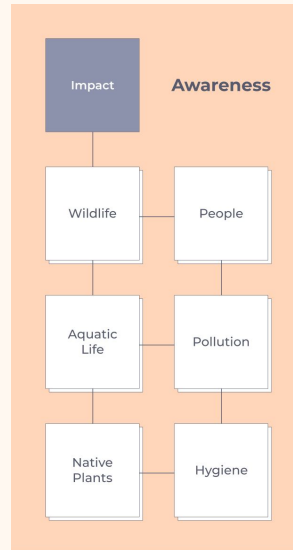We did some basic sketches to illustrate the format of this information.

The Home Page's main intention is to capture the audience's attention by acknowledging responsibility and showing how close the problem is to home. We also wanted to recognise the people within the community that are already doing good work to help encourage others to join in.

Website

Interactive hover map to show what is being affected by litter

Impact

NATIVE BIRDS
POLLUTION
AQUATIC LIFE
NATIVE PLANTS
HYGIENE

WHITE IBIS

ROYAL SPOONBILL

CLICKS ON BIRDS
Infographic on types of birds that are near catchment

GRASS PARROT

Impact — Awareness

Wildlife — People

Aquatic Life — Pollution

Native Plants — Hygiene

The impact page educates people on the effects of littering around the catchment area as they might not be aware. This can come be done in an interactive way to make more fun and exciting with pictures and graphics.
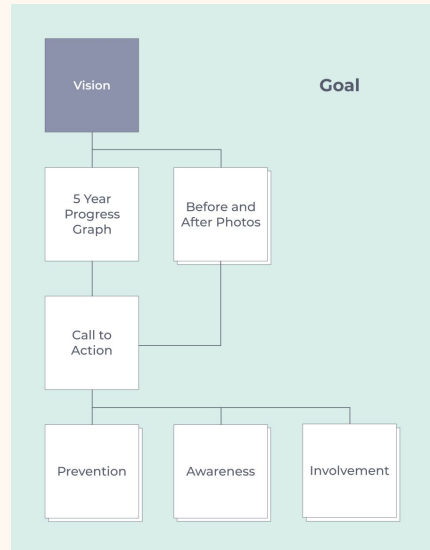
Website
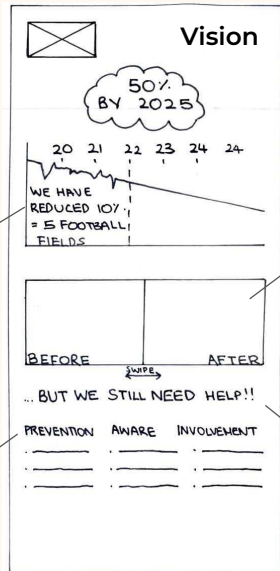
The vision page is a visual representation to help people understand the progress of the goal and easy steps on how people can get started.

Photos, graphs and charts to depict this.

Website

Explaining what role people play and what they should already be doing eg. Council should provide sufficient bins

Giving site visitors the closest option for a clean up
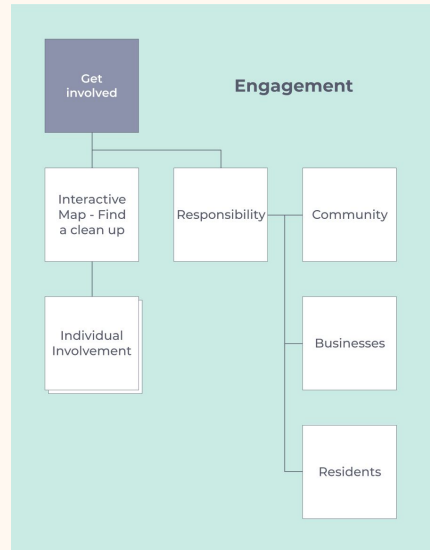
The getting involved page shows how you can help as a local resident from home or how you can get involved with the community in a simple way.

This might include a sitemap on where the closest clean up is so you know how far you need to travel. As Ivy touched upon before, this might make people understand that the issue is closer to home than they think.

RCC website
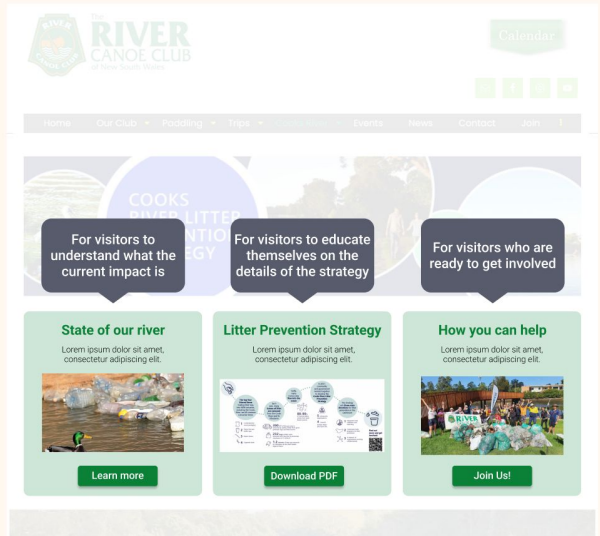
While the website is being built, we suggest you make small changes on the River Canoe Club website to make it easier for people to be informed and get involved.

According to our research, these three sections could include:

- Information about the current state of the river and what kind of impacts there are.
- The prevention strategy itself so people are able to read about some of the info
- And a section on how site visitors can help the cause

Presentations
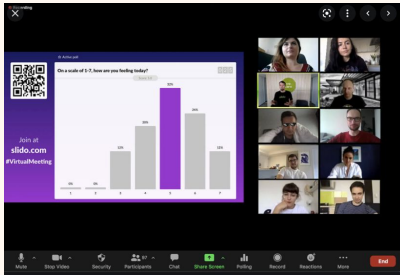
Other effective ways to raise awareness maybe include online presentations, speaking at schools and clubs.

https://aev.gouvernement.lu/fr/actualites.gouvernement%2Bfr%2Bact ualites%2Btoutes_actualites%2Bcommuniques%2B2021%2B04-avril% 2B13-campagne-sensibilisation-littering.html

https://www.stopwaste.org/at-school/take-action-at-home/take-actio n-at-home-litter-free-action-project

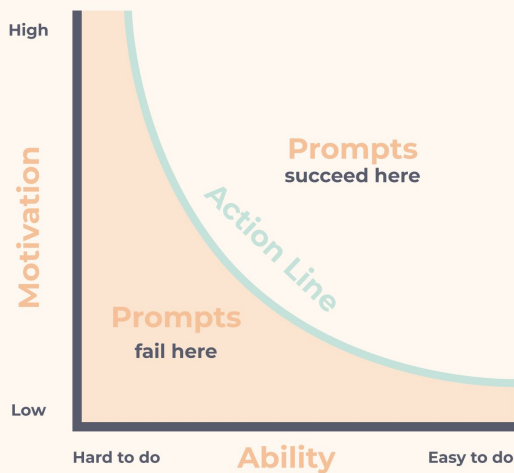https://blog.sli.do/live-polling-in-zoom-tips/

https://phrma.org/Coronavirus/PhRMA-Statement-on-Presidential-Ex ecutive-Order-Restricting-Diversity-Training

But how do we drive **LONG TERM** change?

These were some of the ways you can raise awareness but we also have to think about how we can drive long term change.

Causes of behavioural change

Dr BJ Fogg | Founder of Behaviour Lab | Stanford University.
BJ Fogg N.D., Fogg Behavior Model, viewed by 1st Jan 2022.

So this is the graph from Dr BJ Fogg

He is the founder of Behaviour Lab at Stanford University, and has developed this model of behaviour change for over 20 years.

The model suggests that three elements must converge at the same time for a behavior to occur, which is Motivation, Ability, and a Prompt.

This model also suggests that changes are made by starting with small and easy steps.

According to our research, we found out everyone has the ability to pick up litter, but they don't have enough motivation and triggers, so their behaviour doesn't change.

We've also look at some other behaviour studies, and we put them in the hand over document.

https://behaviormodel.org/

Human behavioural studies

Download PDF

These are some examples of human behaviour models that could influence long term change.

Social proof refers to our innate herd mentality.
If we find ourselves in a situation where we're not sure what to do, we tend to copy others.
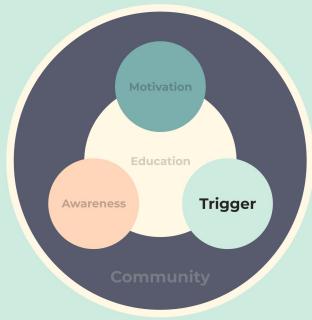If we are able to leverage this and get more people involved, naturally others will join.

The Scarcity Bias is what causes us to put higher value on something in short supply, high demand or available within a limited timeframe - think diamonds! If we can get the community to see that we only have one Cooks River, people may start to realise how important it is.

The Mere Exposure Effect refers to our tendency to prefer things over others, merely because they are familiar. The more time someone sees a campaign, the more they may become open to that idea.

Temporal discounting is our tendency to put more value on the now. Think ice cream now, gym later.
If we can demonstrate the River health in 5-10 years time, maybe more people will join to help.

https://drive.google.com/file/d/19o4WGfQ1HPqGbWhaMxt8yTAkxHjOLx4B/view

Trigger

We are all responsible!

Healthy Cooks River and revival of ecosystem

Getting the community involved

Community

Getting businesses involved

Join a clean up campaign

Reactive

Clean your neighbourhood

Clean your verge

Individual

Don't overfill bins

Proactive

Be conscious of packaging

To create long term behaviour change in community - we must start small and focus on the individuals.

Proactive

Packaging usage

| 14 bags | $6.90 | 1 bag | $2.96 |

Small differences adds up over time, lets do it NSW

| 90 packs | $74.25 | 5 packs | $19.16 |

We can save our river and our wallets at the same time

Promote containers to store snacks

Litter Free Living N.D., Litter Saving Tips, viewed by 31st Jan 2022.

The first example is about reducing the use of packaging.
By highlighting the difference between individual and bulk (bou) packaging, and the price difference, can really show the benefit to the customer, while reducing packaging.

For example, instead of having 14 individual bags of chips buying 1 large pack will create less packaging.

There is also a large difference in price!

So we can use this to encourage people to buy just the 1 bag and use containers instead.

Trigger at point of purchase

Ideally, these types of messages can be coupled with triggers at the supermarkets to remind people.

This might include having the message on shopping cart, basket, green bags and aisle signage where snacks are located.

Also, if we want to promote less single use plastic bags, we can encourage supermarkets to sell mesh bags near the veggie section as a trigger.

Litter saving tips.

Other ides:
- Mesh bags sale at fruit and veg section
- Free mesh bag giveaway
- Air tight clips for larger packaging giveaway
- Educate people about how to keep food fresh for bigger packaging
- Promote containers for kids lunches/snacks
- Container giveaways

Reminders for overfilled bins
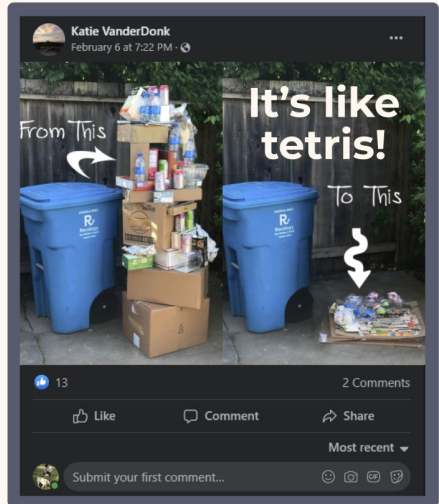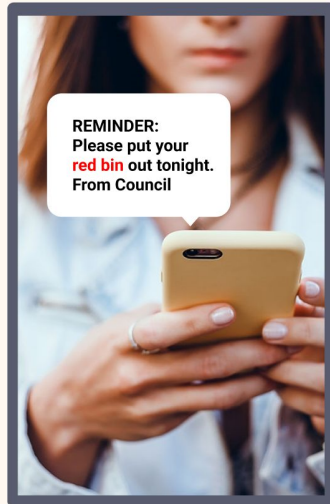
Rethinkwaste 2020, 5 Tips For Managing Your Recycling, Compost & Garbage, viewed by 10th Feb 2022

Messaging on bins, may also help reduce overfilling and ensure people are taking bins out on the correct night.

Reminder messages from the council or simply showing how to compact your recycling will help in making sure people are doing the right thing on an individual level.

These are the trigger for proactive level, but what about the trigger for the reactive level?

Other ides:
- Fridge magnets to remind people to take out bins on certain nights (calendar)
- Stickers to stick on the indoor bins to remind them which night they go out
- Alarm reminders for bins
- Slogan to remind people which night bin goes out
- Resources on how to shrink things down to fit into bins
- Tie your bag campaign so they don't come apart
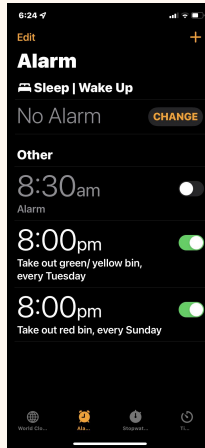
Reactive

Clean your verge

Verge gardens

Signage
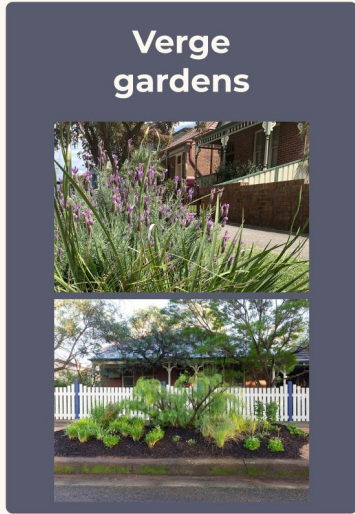
Storm drain signs

KeepAustraliaBeautiful N.D., Bin It, viewed by 11th Feb 2022.

Flowers gardens have been proven to reduce litter, encouraging people to plant flowers on their nature strip could be a good solution for hotspot suburbs.

While storm drain signs and general signage may help remind people to do the right thing.

Other measures

Promote plogging with local maps — Picking up litter + Jogging

"Treasure" hunt clean ups

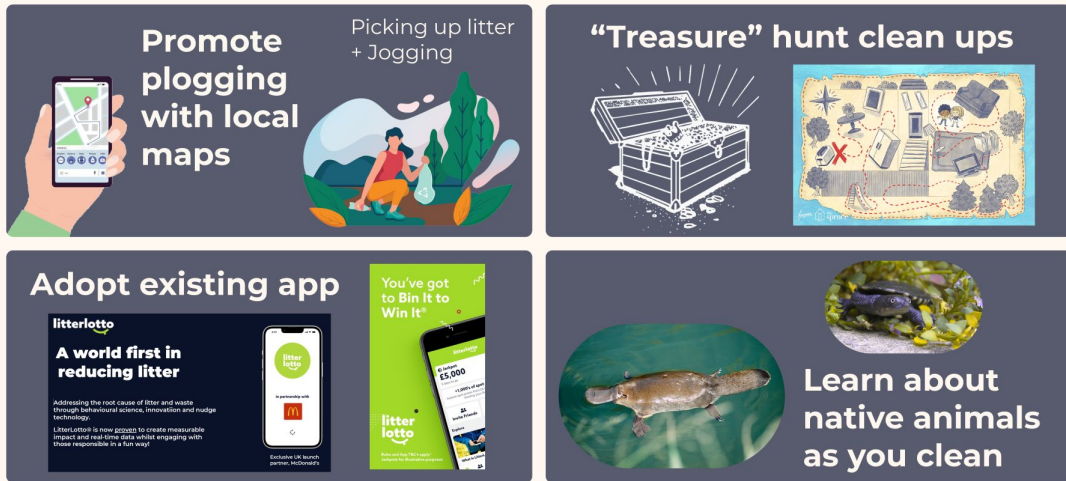Adopt existing app — litterlotto — A world first in reducing litter — Addressing the root cause of litter and waste through behavioural science, innovation and nudge technology. LitterLotto® is now proven to create measurable impact and real-time data whilst engaging with those responsible in a fun way! — Exclusive UK launch partner, McDonald's — You've got to Bin It to Win It® — £5,000 — litter lotto

Learn about native animals as you clean

Plogging to encourage joggers to pick up litter.

Treasure hunt to gamify clean ups.

Adopt existing apps like Litter Lotto which is available in Australia.

And learning about native animals as you clean.

https://www.daniellabrosse.art/pukemons-for-leithers-dont-litter

Crowdsourcing ideas

Creating competitions with a prize is a great way to get potential ideas but also to get the conversation started.

Assigning local leaders and giving them tools to run a litter workshops online or in person maybe be a great way to source creative ideas from the community.

You asked us for ideas on where to start for litter prevention.
That you wanted to get the community engaged and create a long lasting change.

This we found to be a very large and complex question, one we believe requires a holistic approach.

From our campaign and human behaviour research, we have found 3 core similarities:
Get your story out there
Make it easy to get involved and
Create triggers or reminders

So where do we start? What is the best initiative?

Every place is different

Yokohama, Japan	Singapore	La Villette, Paris
Place-based education	**Strict urban laws and heavy fines**	**Waterways into swimming hotspots**

We realised successful initiatives can take on many forms - there is no one size fits all approach.

Yokohama in Japan achieved 43% reduction in garbage waste with place-based education.

Singapore achieved a clean city by strict urban laws and heavy fines. Although this isn't a path we encourage.

Cities around the world are making polluted waterways into swimming hotspots to reconnect people with rivers and canals.

So what is the right solution for the Cooks River and the communities surrounding it.

Perhaps the first step is a free walking or boat tour that highlights native wildlife and plants and how litter affects them.

Or maybe it's a sponsored bbq's or a small gathering at the river to get the conversation started.

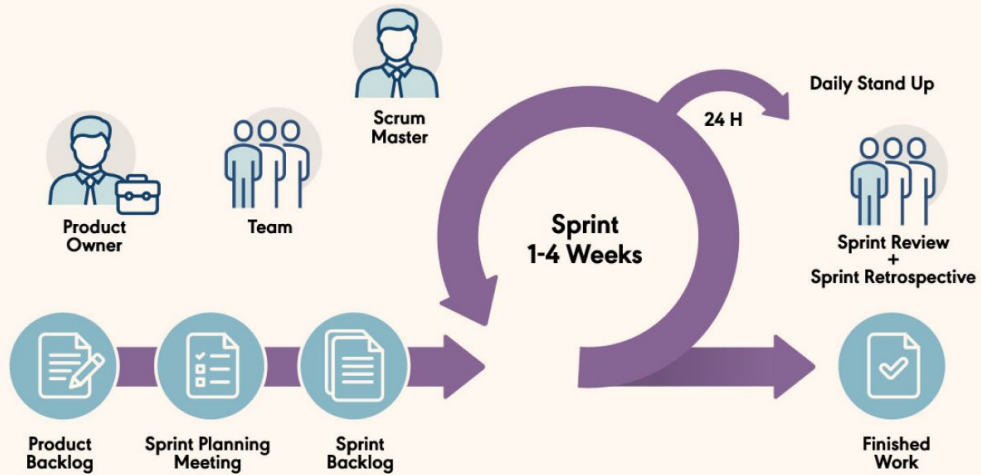But at the end of the day, you won't know what works best, without trying them first.
For this reason, we want to go over something called Scrum.

https://archive.curbed.com/2017/8/3/16089352/city-rivers-swimming-safe

https://dotlah.com/2019/09/10/who-cleans-our-singapore/

https://www.tandfonline.com/doi/full/10.1080/21681376.2020.1794950
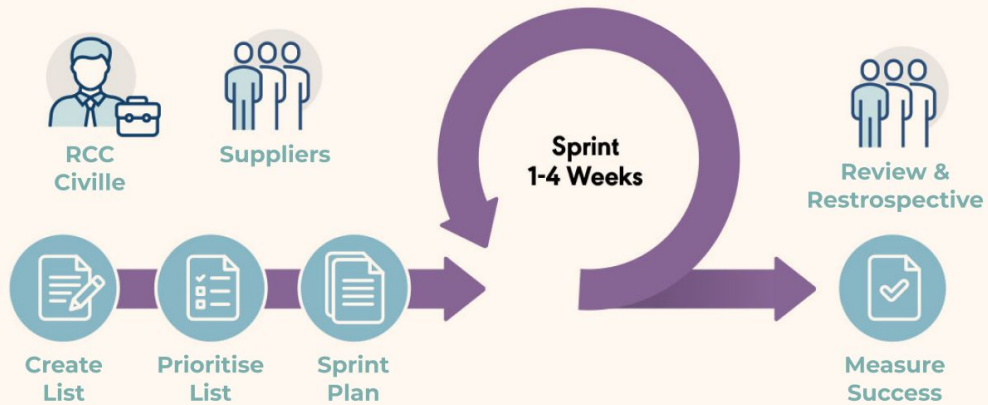
Scrum process

Scrum is a framework that helps teams work together.

Much like a rugby team, scrum encourages teams to learn through experiences, self-organisation and reflect on their wins and losses to continuously improve.

It's widely used in software development but it's becoming more common in other industries like financial services, product development, construction, advertising and much more.

The great thing about this framework, is that we can apply it to test initiatives for the Cooks River, and it might look something like this.

Scrum for Cooks River

RCC Civille | Suppliers | Create List | Prioritise List | Sprint Plan | Sprint 1-4 Weeks | Review & Restrospective | Measure Success

First create a list of all the initiatives that you think will potentially work.
Prioritise that list
Make a plan for the first initiative
Run that campaign on a small scale in a hotspot area
Then measure the success

If you are able to run 1 small campaign every month, you'll be able to measure 12 different initiatives in a year and compare the success.

You can then concentrate what worked and cut out what didn't.

Depending on how successful a campaign is, you may find yourself re-prioritising your list, and that's the beauty of scrum, you are able change direction quickly depending on the community's reaction.

Create a list

- Sorting out single use plastics
- Simple local litter reporting
- Love your home ground
- Love your school ground
- Love your verge
- Take away and clean up
- Cleaning up commercial lanes
- Local litter campaign resources
- Storm drain signs
- Storm drain strainers
- Animals campaign
- Storm drain infographic campaign
- Plogging campaign
- "Treasure" hunt campaign
- Creative competition campaign
- Community workshops
- Supermarket signage
- Pride messaging campaign
- Social media blast

Sprint
1-4 Weeks

Create List · Prioritise List · Sprint Plan · Measure Success

First just list out all of the initiatives you want to run, any and all ideas are welcome.
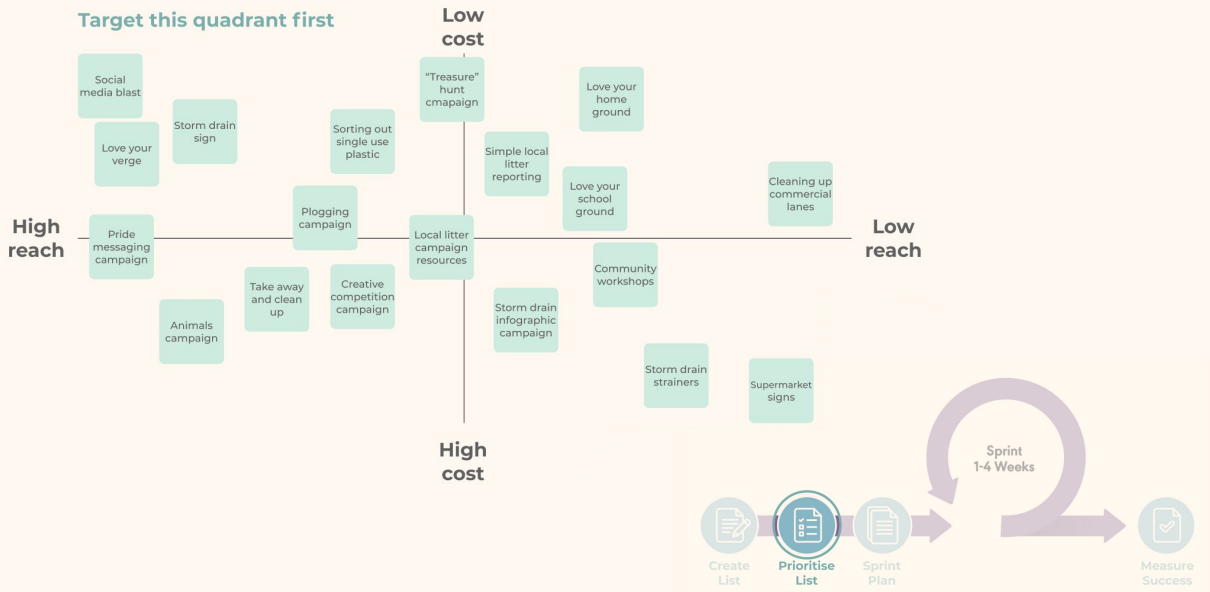
Then plot out all the initiatives onto a quadrant chart with 2 different metrics.

Here I've used cost and reach but these axes can be changed to suit your needs.

Usually you'll want to start with something that is low cost as you may learn from the first few initiatives and this chart may look very different quickly.
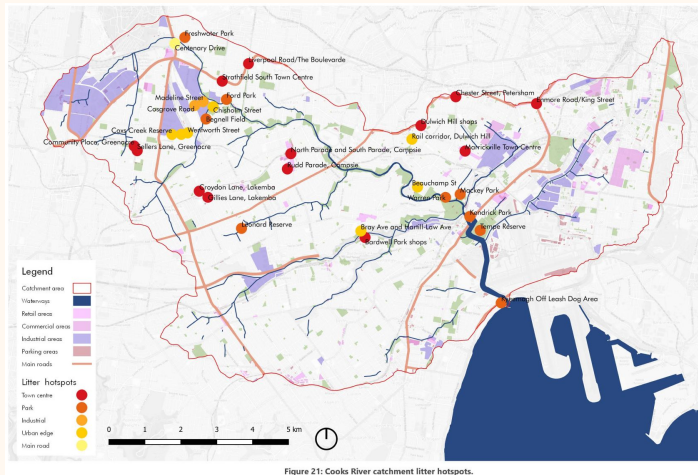
Plan a sprint

Figure 21: Cooks River catchment litter hotspots.

Once you've chosen the first initiative, make a plan.

It's great that you have this hotspot data from the strategy so you'll know exactly where to deploy these initiatives.

The idea of scrum is breaking down big tasks into small ones

so we think any given initiative should only be deployed in one suburb first to see how well it does.

Sprint 1-4 weeks
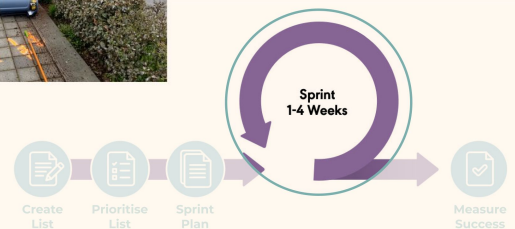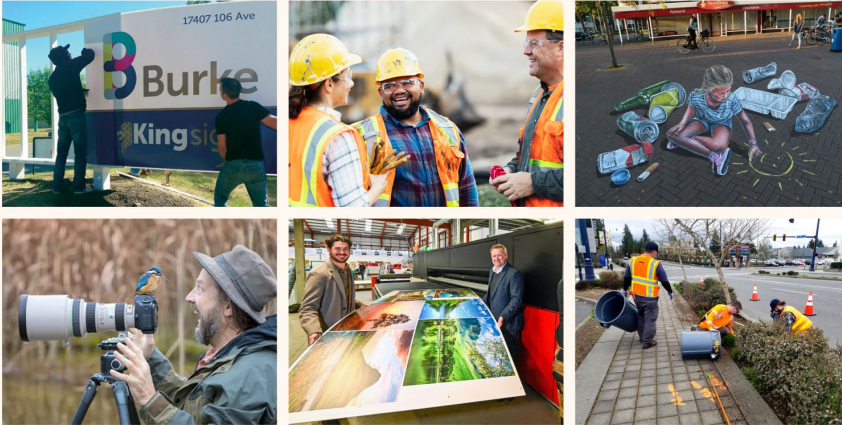
Once you're ready, you'll run the campaign.

We have listed local contacts including a wildlife photographer, a signage installer and a large format printer.
Their details are in the slide notes should you need them.

Leila Jeffreys - Photographer
For any urgent requests, please call Kristen on +61 (0)420 416 711 or email kristen@leilajeffreys.com
https://www.leilajeffreys.com/

Stephen Lear - Signage installer
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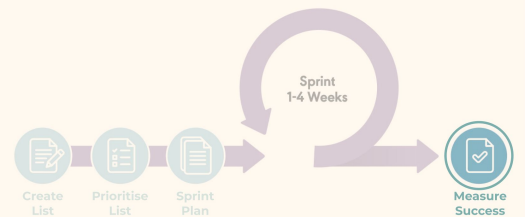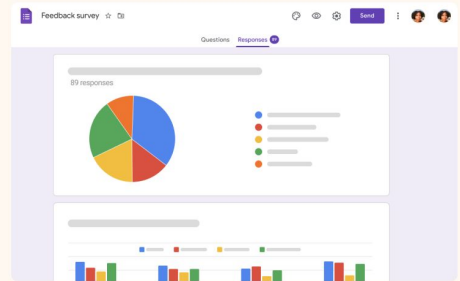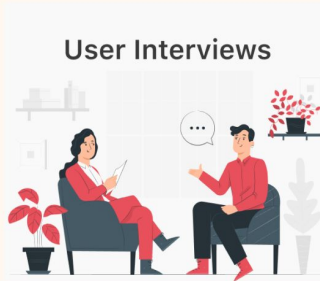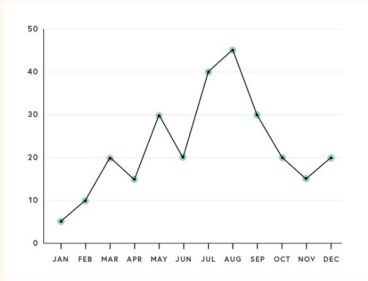david.f@next-printing.com

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Measure success

After a fixed time you will want to measure the success of the campaign.

This maybe through website analytics, user interviews, surveys or any other measurable means.
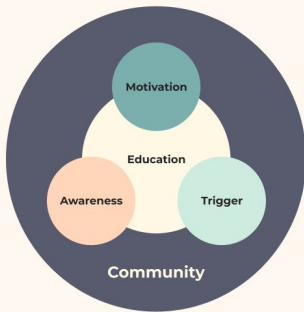
We believe your finding will then steer the direction of the next campaign or initiative.

Start small

In summary, scrum is a framework that allows you to test small then measure the success so you don't have to make big decisions at the start but only commit when you have evidence that it will work.

Summary

In summary, the framework consists of 3 core components, which is motivation, awareness and trigger.

All of which will assist in educating the people to build a strong community.

Dr. BJ Fogg's behaviour model suggest that if we are able to start with something small, people are more likely to develop long term habits.

The last graph shows how these individual habits feed into a larger change within the community.

As Van mentioned at the start of the presentation, we believe this requires a holistic approach and we are optimistic that our framework will help!

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Thank you!

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