



PALMY'S PLASTIC POLLUTION CHALLENGE

Keeping Palmy's main waterways free from litter





Thanks for volunteering to take care of our waterways.

Removing rubbish pollution from our urban streams, rivers and land helps to prevent flooding, protect native wildlife and their habitat, and keep our environment beautiful.

Here are a few things to keep in mind when you go out on your mission.

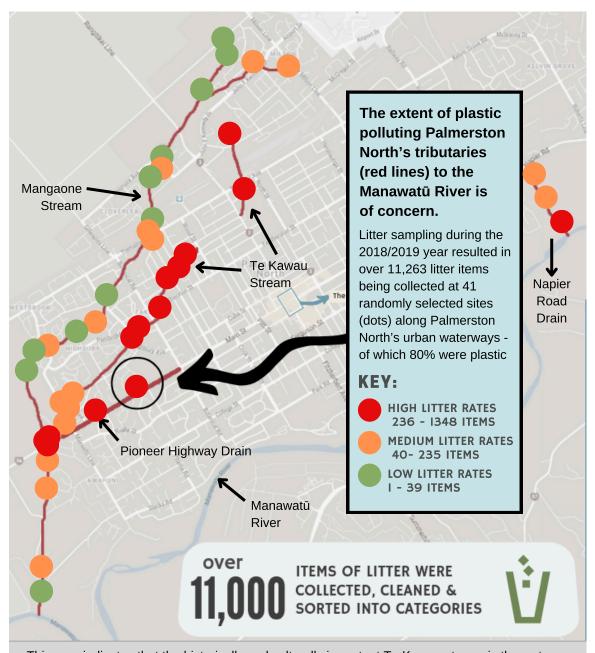
Remember this is a guide only: participant safety is ultimately the responsibility of the organiser.

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Background to the Plastic Pollution Challenge



This map indicates that the historically and culturally important Te Kawau stream is the waterway most compromised by plastic pollution in the City.

Te Ao Turoa Environmental Centre, the environmental advisory office for Rangitāne o Manawatū, has monitored Palmy's urban waterways for a few years and estimates about 5 tonnes of rubbish was removed from just one section of Te Kawau that over that time, with the involvement of about 300 people.

Removing rubbish pollution from our urban streams, rivers and land helps to prevent flooding, protect native wildlife and their habitat, and keep our environment beautiful.

Te Ao Turoa has a very clear vision for a brighter, cleaner future. "Our water is our treasure, our taonga, and we need to care for it. I'd love to see children safely splashing around in Te Kawau and enjoying watching the wildlife there again. The water quality has been declining since the 1980's. Think of what we can achieve as a team of 80 thousand!"

Each year, groups in the community volunteer their time to keep these tributaries free from plastic pollution and other litter. These tributaries rely on volunteers like you!



Essential steps to organising & carrying out a clean-up event

STEPS:

1 Choose the section of waterway that you would like to clean from the 'Map of Main Waterways' on Pages 6 & 7.

2

Prepare your Health and Safety Plan:

If your organisation has its own health & safety procedures, read these and incorporate the following as you see fit:

Make a list of the **general hazards** that your participants and general public may encounter during the event, and what actions will be taken to **manage the risk of illness or injury**. You can use the 'Sample: General Hazards & Managing Risk of Injury or Illness' on Pages 8 to 10 as a starting point.

Visit the site and identify the hazards present and how they can be eliminated, isolated or mitigated to ensure the site is safe for the ages and abilities of your expected participants and for the general public. If you cannot easily manage risk of severe injury or illness, eliminate the site and select another.

Plan how you will manage an incident if it does occur, including having a certified first aider, first aid kit, and cell phone on site, as well as instructions for participants should an incident occur. You can use the 'Sample: Responding to an Incident' on Page 14 as a starting point.

Put together a **Site Management Plan** that shows the information relevant to organisers and participants, including the event base, first aid post, the location of hazards and your strategy for managing the risk of injury or illness. A 'Sample: Site Management Plan' can be found on Page 12.



Essential steps to organising & carrying out a clean-up event

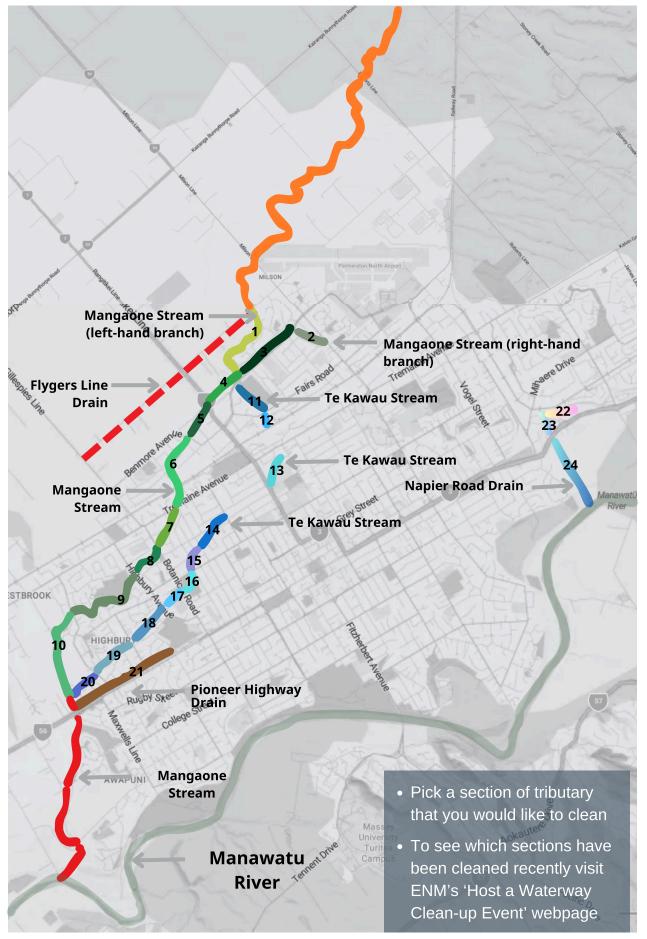
STEPS continued...

- **5** Choose a date and time to clean the location.
- Hensure you can supply everything listed in the 'Organiser's Pre-Event Checklist' on Page 15 & make a note of anything you will need from ENM.
- Fill in the online form to register your clean-up event on ENM's "Host a Waterway Clean-up Event" webpage, including the specifying the items needed from ENM. Please complete this at least 3 days before the event.
- Invite people to participate (Sample: Participant Invitation on Page 13).
- As per your Health and Safety Plan, **check the weather forecast a few days prior to the event**, taking into consideration anticipated and actual rainfall in the upper catchment area as well as at the site, and consider whether to cancel or postpone the event at that time.
- **Gather your equipment in advance**, i.e. at least the day before.
- On event day, **check the site an hour before the event** to assess whether or not the event is safe to proceed and if so whether any additional safety measures need to be put in place.
- Hold a briefing at the beginning of the event that all participants must attend, covering the topics listed in the Event Day Form.
- Regather at the end of the event for a participant debrief and to collect the remaining data for the Event Day Form, including the combined weight of the small items after collating them into the clear plastic PNCC bags, and the estimated volume and weight of the bulkier items.
- 12 Take the litter in the clear plastic 'Palmy' bags to the Matthews Ave

 Transfer Station for free disposal. The Transfer Station will not accept
 items that are not in these specific bags.
- The PNCC will collect items too bulky to fit into the 'Palmy' bags from the pre-arranged collection point the following day (due to contamination, most items collected will be sent to landfill).
- Return the completed Event Day Form (pg 16) to the ENM office, along with any borrowed equipment and spare bags (ensure everything is clean before returning), or email form to circ.economy@enm.org.nz.



Map of main waterways in P.N. divided into sections for clean-up events





Key to map of main waterways divided into sections for cleanup

KEY

Mangaone Stream

- Private property permission from landowner & occupier required prior to accessing this area
- Not safe for community-led clean-up events due to extreme hazard deep water
- 1. Flygers Line to confluence with right-hand branch of Mangaone Stream
- 2. Milson Line to John F Kennedy Drive3. John F Kennedy Drive to confluence with left-hand branch of Mangaone Stream
- 4. Confluence of left and right-hand branches of Mangaone Stream to Rangitikeī St
- 5. Rangitikeī Line to Benmore Ave
- 6. Benmore Ave to Tremaine Ave
- 7. Tremaine Ave to Botanical Road (closed until May 2025 due to site works)
- 8. Botanical Road to Highbury Ave
- 9. Highbury Ave to Amberley Ave
- 10. Amberley Ave to confluence with Kawau Stream

Te Kawau Stream

- 11. John F Kennedy Drive to Fairs Road
- 12. Fairs Road to railway tracks
- 13. Tremaine Ave to Rangitikeī Street (bounded by industry and QE College)
- 14. Wood Street to Seddon Street
- 15. Seddon Street to Featherston Street
- 16. Featherston Street to Botanical Road
- 17. Botanical Road to Highbury Ave
- 18. Highbury Ave to Monrad Street
- 19. Monrad Street to Amberley Ave (access currently blocked at Amberley Ave)
- 20. Amberley Ave to confluence with Mangaone Stream

Pioneer Highway Drain

21. Pioneer Highway - between Monrad Street and Maxwells Line

Napier Road Drain

- 22. Along railway track back of BUPA retirement village
- 23. Railway track to Napier Road
- 24. Napier Road to Manawatu River

Flygers Line Drain

Not safe for community-led clean-up events due to extreme hazard - fast vehicular traffic



Sample: General hazards & managing risk of injury & illness

POTENTIAL HAZARDS	POSSIBLE RISK	ACTIONS TO BE TAKEN BY ORGANISER TO MANAGE THE RISK	ACTIONS TO BE TAKEN BY PARTICIPANTS TO MANAGE THE RISK
Participants not following instructions e.g. due to language barriers, children, mental impairment	Injury or illness to self or others by not following instructions	 Match clean up site to expected participant age groups and abilities All children (under the age of 18) to be accompanied by an adult Ensure an adequate ratio of adult supervisors to children Use appropriate mediums and content to inform participants of the hazards and how to minimise risk of injury to self and others depending on their age, ethnicity, culture and ability Ensure adults who appear to not understand/be able to follow instructions be paired with an experienced stream cleaner 	All children must be accompanied by an adult Work in small groups Participants to work in pairs at a minimum Participants who are taking extreme risks or repeatedly not following instructions will be asked to leave the event
Proximity to large moving vehicles in and around site e.g. access points, road crossings	Injury to pedestrians by vehicles	 Reduce the number of road crossings when formulating site management plan Alert participants of the risk points Supply hi-vis vests to participants 	 See site map for risk points, including road crossings, public walkways Be aware of moving vehicles when crossing roads Children must be accompanied by adults at all times Wear hi-vis vest provided
Members of the public in the event area, including walking, scooting or biking along public walkways	Public walking, on bikes, scooters colliding with participants or tripping over equipment or rubbish collected Participants affected by antisocial behaviour from public	 At access points, alert the public to the event and possible hazards including with flags, signs, supervisors Inform participants of the possibility of the public using walkways and to keep the paths clear of equipment and rubbish collected 	 Be vigilant of members of the public using walkways, especially on bikes, mobility scooters and 2-wheeled scooters, and promptly step off the path to let people through Keep paths free from equipment and rubbish collected Wear hi-vis vest provided Let an organiser know is someone is making you feel unsafe
Presence of dogs in the event area	Injury from dog bite	Alert the public with dogs accessing the site and ask them to keep them undercontrol, out of the water and away from participants at all times	 Please do not bring dogs to the event Do not interact with any dogs at the event Please notify the organiser if you see dogs wandering unsupervised around the site - they may have come from neighbouring properties and be unfriendly
Participant exisitng health issues e.g. allergies from grass pollen, dust, bee stings, heart condition	Injury or illness due to existing health issues that may or not be brought on by environmental factors	 Ask participants to disclose pre-existing health conditions after health and safety briefing Ensure participants work in pairs as a minimum Do not allow those with high risk of health issues to access the waterway banks or waterway itself 	 Work to your own ability. Make the organiser aware of any health issues that may affect you or your children during the cleanup Bring any medications that may be required along with you e.g. epi-pen, inhalers



Sample: General hazards & managing risk of injury & illness

POTENTIAL HAZARDS	POSSIBLE RISK	ACTIONS TO BE TAKEN BY ORGANISER TO MANAGE THE RISK	ACTIONS TO BE TAKEN BY PARTICIPANTS TO MANAGE THE RISK
Cold temperature	Hypothermia, coldness	 Cancel or postpone the event, before or during, if very cold temperatures are expected or present. Have blankets available 	 Bring layers of dry and warm clothing. Stop working if you feel cold, and return to the Event Base.
Sun	Injury from sunburn or overheating	 Check weather forecast and cancel or postpone the event if the heat is too extreme. Have ice packs and drinking water available for people to refill bottles 	 Wear a hat, sunscreen, sunglasses and full coverage of light clothing. Bring a drink bottle and carry it with you. Stop working if you feel too hot, find some shade and remove excess clothing to cool down.
Heavy equipment and waste to transport in and around the site Laborious work	Injury from lifting bulky or awkward items Fatigue and overheating	 Site Management Plan identifies a rubbish collection point or points Provide guidelines for safe lifting (Pg 11) Provide ropes for hauling rubbish out of the waterway Provide wheelbarrows to minimise effort of ferrying rubbish and equipment around the site Designate participants to ferry items around Rotate roles regularly to reduce risk of fatigue and injury 	 Work to your own ability and take breaks as required. Share the load between participants where possible. Do more trips to carry less weight. Employ safe lifting practices
Sharp items e.g. glass, wire, needles		 Provide gloves to participants Isolate sharp items and ensure they are safely disposed of 	 Safely remove and take any sharp items to the organiser Wear heavy gloves to protect hands in and out of water
Blackberry, branches, nettles, gorse, long grass	Tripping hazard, entanglement, impalement, scratches and stings	 Isolate areas if too overgrown with hazardous vegetation. Consider cutting back branches and other hazardous obstacles before the event. Provide gloves to participants 	 Avoid or be aware of hazards as per organiser's directions Wear appropriate PPE e.g. gloves and long sleeves/trousers for protection from scratches and stings
Toxic chemicals in containers	Injury or illness from exposure to toxic chemicals	 Provide gloves to participants Do not open closed containers and put with bulk items for collection by PNCC 	 Wear gloves provided Do not open closed containers and take to the organiser
Banks very steep and/or slippery (especially if wet or frosty) Will become more slippery as mud is spread around	Injury to participants from slipping or falling, possibility of drowning if land in stream	 Exclude parts of site if too steep to access safely Mitigate areas with minor risk of injury from slipping by using ropes tied to trees or sturdy stakes as handholds Postpone the event if banks become too slippery during the session 	 Wear sturdy footwear with good grip Work to own ability Avoid or be aware of hazardous areas as directed by the organiser
Banks unstable/undercut	Injury to participants from falling or being hit with falling debris	Isolate the top and bottom of all (but minimally) undercut banks.	Avoid or be aware of hazardous areas as directed by the organiser



Sample: General hazards & managing risk of injury & illness

POTENTIAL HAZARDS	POSSIBLE RISK	ACTIONS TO BE TAKEN BY ORGANISER TO MANAGE THE RISK	ACTIONS TO BE TAKEN BY PARTICIPANTS TO MANAGE THE RISK
Wasp nests	Injury from wasp stings	Notify PNCC of nests to eliminate beforehand or isolate area during cleanup.	Notify the organiser if you come across wasp nests so that they can isolate the area.
Stream/drain beds unsafe due to too deep, flowing too fast or depth unclear due to weed or cloudy water	Risk of drowning from losing footing	 Before organising the event, and on the day of the event, before and during: Assess the stream depth along the site (use a pole if necessary). Where the water level is above knee depth, eliminate the site or isolate those areas from participants Assess the water current by throwing a stick into the stream. Where the water is knee deep, and the stick is moving faster than walking pace, consider eliminating the site or isolating those areas from participants Look at the latest weather forecast and consider how this may effect the water levels and flow from rain in the upper catchment, as well as at the site location, and consider cancelling or postponing the event Plan to work downstream to upstream to ensure water is kept clear enough to see the depth Designate which adults will be cleaning the stream, the remaining participants will not be allowed in the stream 	 Children are not allowed on the waterway banks or in the waterway itself Children must be accompanied by an adult at all times ONLY those adults who have been designated to clean the stream by the organiser are allowed to enter the stream. Designated stream cleaners must not go into areas where the water is above their knee depth If the water level increases to above knee level in the area you are in, leave the waterway immediately Avoid areas that the organiser has identified as out-of-bounds Work downstream to upstream to avoid discolouring the water that's being worked in to give you the best chance of seeing the depth. Use a pole to test the depth where you are uncertain and use as a stability aid
Waders	Risk of drowning due to losing footing while wearing chest waders and them becoming buoyant or water logged	Do not allow the use of chest waders	Chest waders are not to be worn, thigh waders are ok.
Contaminated water e.g. toxic algae, man-made solutions e.g. fuel, leachate from dead animals in water (rats, dogs, cats, etc.)	Risk of swallowing toxins if fall into the stream Risk of reactions, infections if skin is in contact with toxins in the water	 Do a site visit before the day to check for contaminated water. If algae present could be toxic check with Horizons Regional Council and act on their advice. If there are dead animals ask the PNCC to remove carcasses from the site well before the event. If not, avoid the site. Have water and soap available to wash skin. Have drinking water available to wash out eyes and mouth. 	 Wear appropriate PPE e.g. gloves. Notify the organiser if you come across animal carcasses in and around the stream so that they can isolate the downstream area. Notify the organiser if you think there are unsafe levels of toxins in the stream.



Guidelines for Safe Lifting

The DON'Ts and DOs of SAFE LIFTING

DON'T



DON'T try to handle bulky loads alone, leaning the weight against your torso

DO utilize more than one worker to lift and move bulky loads







DON'T lift with your back, curving your body to grab and lift loads from the ground

DO lift with leg muscles, keeping your back straight while bending knees





DON'T haul heavy, hazardous loads that require an intense amount of strength

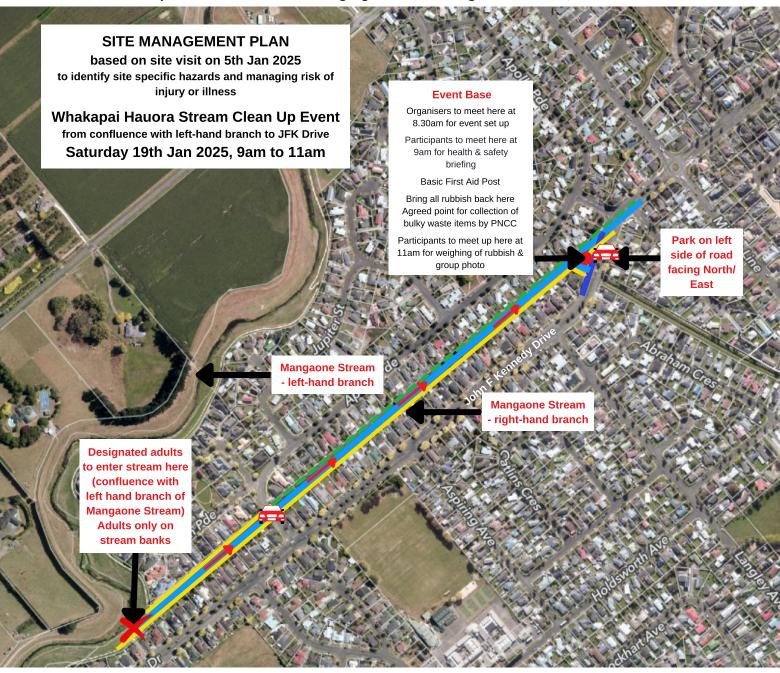
DO use equipment such as dollys, hand trucks, and forklifts to safely lift heavy loads





Sample: Site Management Plan

Location of site specific hazards and managing the risk through elimination, isolation & minimisation



KEY of site specific hazards and risk management

- Park on left side of John F Kennedy Drive when facing North/East parking is on same side of road as meeting point
- Event Base, First Aid Post, Rubbish Collection Point JFK Drive entrance to Mangaone Stream walkway meeting point at start and end of event
- Clean up starting point safe access point to enter the stream here and walk up-stream
- Direction of stream clean up (walking upstream)
 - Mangaone Stream (right hand branch) water level currently ankle to knee deep, weed in places obscuring view of stream bottom (only designated adults allowed in stream), Banks grassy, stable and moderately steep - no visible undercuts, accessible by foot with care (only adults allowed on stream banks) Children must stay on flat areas. At time of site visit, no areas at this site need isolating.
- Formal walkway 12 minutes walk from Event Base to stream entry point provide wheelbarrows & designate participants to transport equipment & rubbish around the site (children allowed here when accompanied by adults)
- Flat grass area accessible by foot (children allowed here when accompanied by adults)



Sample: Participant invitation

Would	you	like to	join ι	ıs on S	Saturday	, 19th Janua	ı ry 2025 b	etweei	n 9am a ı	nd 11an	ո to helլ	p remov	ve
plastic	and	other	litter f	rom th	ie Mang a	one Stream	, between	the co	nfluence	of the I	eft and	right-ha	and

branches of the Mangaone Stream and John F Kennedy Avenue, as part of Palmy's Plastic

(name of participant),

Pollution Challenge?

Removing rubbish pollution from our urban streams, rivers and land helps to prevent flooding, protect native wildlife and their habitat, and keep our environment beautiful. Whilst the PNCC does its best to keep our City clean, because it is such a large area, the Manawatu River also relies on the Palmerston North community to keep Palmerston North's tributaries free from pollution.

If you would like to help out, please meet at the **John F Kennedy Drive access point to the Mangaone Stream** at **9am** for an event briefing, including health and safety procedures and how to respond in an incident, and to collect equipment and the personal protective equipment (PPE) required for the job.

If you are able to stay for the duration, we will regather at the meeting point at 11am for a debrief and to have a group photo of you with the waste collected.

Before the event, please read the documents attached to this email, comprising:

- the general hazards that you will or may encounter during the clean-up event and the precautions to take to keep you and others safe, including guidelines for safe lifting
- A Site Management Plan, showing the important features such as vehicle parking, the meeting point, first aid post and site-specific hazards to be mindful of
- · Instructions for responding to an incident

PLEASE BRING ALONG WITH YOU ON THE DAY:

A copy of this email, including attachments
Gumboots or sturdy footwear
Sunblock
Sunglasses
Sun hat
Insect repellant
Towel
Warm layers of clothing
A dry change of clothing
Wet weather gear
Any medication that you may require e.g. epi-pen, asthma inhaler



Sample: Responding to an incident

In the case of injury or illness:

Make the site safe from further risk of accident or illness

If the injury or illness is severe, call 111 immediately for an ambulance and/or other services Below are injuries or illnesses that require immediate action from you before a Certified First Aider gets to you.

Once preliminary first aid is administered, notify the organiser on _____ (ph. number) and they will send a trained first aider to attend to the injured or ill person.

UNCONSCIOUSNESS

Check Airways, Breathing and Circulation and if the person is not breathing and their airway is clear, commence CPR.

SEVERE BLEEDING FROM CUTS OR PUNCTURE WOUNDS

- 1. Avoid contact with blood or other body fluids from the injured person and thoroughly wash your hands or any blood-splashed skin as soon as possible.
- 2. Raise the injured area to reduce blood flow.
- 3. Apply firm pressure over the wound with a clean cloth or clothing

FRACTURES AND DISLOCATIONS

- 4. Do not move the patient or injured area unnecessarily
- 5. Control any bleeding and support the injured limb/area.

ALLERGIC REACTIONS

From bee stings

- 1. Within seconds brush or scrape the area with a fingernail or side of your hand to remove the barb from the skin.
- 2. Check if patient is allergic to bee stings and has an epi-pen
- 3. Raise the affected area as high as possible to limit swelling
- 4. Observe the patient closely for any change in condition. If any warning signs of an allergic reaction occur call 111 for an ambulance. Warning signs include a fine rash over the trunk, wheezing, coughing, or swelling around the face, eyes, and neck

Asthma attack from allergens

- 1. Check if patient has asthma and is carrying an inhaler
- 2. Administer inhaler
- 3. Observe the patient closely for any change in condition. If condition worsens significantly call 111 for an ambulance.

SPIDER BITES

- 1. Wash the affected area to remove remaining venom.
- 2. Keep the patient still to reduce the toxic effects of the venom (Katipo spider bites may cause pain and illness in small children but are not normally a threat to life).
- 3. Raise the bitten limb to limit swelling.
- 4. Observe the patient closely for a change in condition and if pain becomes severe or patient becomes ill with fever, headache, and nausea or vomiting seek medical advice or call 111.

SPRAINS, STRAINS, AND BRUISES

Assist the patient to rest in a comfortable position.



Organiser's pre-event checklist

THINGS TO HAVE ON THE DAY:

	Palmy's Plastic Pollution Challenge "A Guide for Event Organisers"
	 Health & Safety Plan, comprising a minimum of: General hazards & management of risk of injury or illness, including guidelines for safe lifting (sample on pg 8-11) A Site Management Plan (sample on pg 12), showing site-specific hazards and management of risk, logistics, timings etc. A plan for responding to an incident (sample on pg 14)
	Certified First Aider
	Helpers - to assist with event preparations and running of
	Cellphone
	Containers of drinking water and cups
	Blankets
	Towels
The	following can be supplied by ENM on request through the event registration form (Step 5)
Col	lect:
	Single-use 'Palmy' stream cleanup bags (for free disposal of small litter items at end of event)
Вос	ok & Borrow:
	First Aid Kit (contains basic First Aid instructions)
	Flag to identify event meeting point (Plastic Pollution Challenge)
	Gloves
	Hook weighing scales - for weighing bags of small litter items collected
	Hi-vis vests
	Icepacks - remember to freeze at least the day before the event
	Pick-up sticks - for picking up litter
	Reusable litter collection bags
	Ropes (to pull large objects out of the stream & for hand holds as hazard minimisation)
	Safety tape for isolating hazards
	Sanitation equipment: large water containers with taps, hand soap & hand sanitiser
	Table - fold-out
	Waders - thigh
	Wheelbarrows



Event Day Form for Organisers

Fill in progressively on Event Day

GROUP/ORGANISATION NAME:

SECTION OF WATERWAY BEING CLEANED:

EVENT DATE:

START TIME: FINISH TIME:

MEETING POINT AT START:

TOTAL NUMBER OF PARTICIPANTS (including organisers):

NUMBER OF ADULTS (aged over 18 years):

NUMBER OF CHILDREN:

(must be accompanied by an adult, adequate ratio of supervisors to children)

BRIEF PARTICIPANTS AT START OF EVENT

Event logistics and timing: Y/N

Hazards and management of risk of injury and illness: Y/N

How to respond in an incident: Y/N

Hand out PPE and instructions for use: Y/N

DEBRIEF PARTICIPANTS AT END OF EVENT

Group photo with waste: Y / N

Weight of waste collected in clear plastic Palmy bags: Kg

Estimated volume of bulky items to be collected by PNCC: cubic metres

Estimated weight of bulky items to be collected by PNCC: Kg

PPE handed back: Y / N

List any new hazards that need adding to the "Guide for Event Organisers":

List any incidents that ENM should be made aware of:

Most common type of waste:

Note down any illegal dumping and type:

List any unusual or interesting items found:



Join The Circular Economy Network

Congratulations for completing your stream clean-up event!

You will have seen first-hand the negative impact of plastic and other litter on our aquatic environments. If we don't protect the life-supporting capacity of air, water, soil & ecosystems, nature can't support us and continue to provide us with the resources we need to survive and thrive.

The Solution:

A **Circular Economy** ensures resources are consumed in a way that protects and restores natural ecosystems, specifically through the:

- avoidance of resources that harm the environment: during extraction, production, use and/or disposal
- adoption of economical practices, including only using what we need, and keeping resources in use for as long as possible

JOIN ENM'S CIRCULAR ECONOMY NETWORK

We are an expanding network of groups, individuals and businesses, working together to promote, foster and instill Circular Economy practices and activities within our communities.



Join our network and collaborate with others to make a difference

E: circ.economy@enm.org.nz

P: 06 355 0126

Stay in the loop by following us:

FB & Insta: @Circular Econ

Join our newsletter: www.enm.org.nz





DONATE VOLUNTEER STAY IN THE LOOP

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