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Sustainability News

In this Edition:

Tackling Gorse + Plastic Waste in One Hit!

Tackling two issues (invasive plants and plastics) in a unique gorse + biopolymer blend.

Promax Storm Drain Innovation

TankGuard®- a stormwater detention system that safeguards against blockages and ensures controlled discharge.

Operation Clean Sweep – Plastics Clean Up Week

Event details below. Get Involved!

Keep New Zealand Beautiful – Clean Up Week

Our friends at KNZB have a similar event before ours – find out how to support them [here](#).

Our next Lunch and Learn

Switching to Renewable Energy - solar-powered Insights from Zen Energy and Uniplas

News You May Have Missed

Some links from social media, including Rachel's Plastics Treaty Negotiation updates.

Good News Stories

Let us know what you've been up to.

An Interview with...

Gemma Burnside, 3R Group

Tackling Gorse + Plastic Waste in One Hit!

What do invasive gorse and plastic waste have in common? For Koro Carman and Simon Tanner, they both represent an opportunity – and they're swinging into action with a bold idea: turning one problem into a solution for the other.

Together, Koro and Simon are developing a biodegradable polymer blend using gorse fibres, with the broader aim of enabling manufacturers to create a range of sustainable, compostable products. As part of validating their R&D, they created a small run of golf tees – a simple, tangible prototype that demonstrates the material's potential, while offering a real-world application that makes environmental sense.

Golf tees, while small, are a perfect example of where this kind of material can have impact. They're inexpensive, frequently lost or left behind on the course, and when made from conventional plastics, they can persist in the environment for years. A compostable alternative that not only breaks down safely but returns organic matter to the soil offers a practical, planet-friendly solution.



Gorse, meanwhile, is one of Aotearoa New Zealand's most aggressive and invasive plant species. It spreads rapidly, displaces native vegetation, and poses a significant fire and biodiversity risk. But with the right thinking, this nuisance plant could become part of the solution.

"We did a small run of our gorse-plastic golf tees last week, made from 30% gorse and a compostable agri-based PHA," says Koro. "We're also in discussions with a party interested in developing a targeted bioplastic product."

By combining gorse fibre with PHA – a polymer derived from agricultural sources that can be used to produce compostable plastic products – Koro and Simon are creating a material that's locally sourced, designed to degrade safely in the environment, and even contribute a touch of nutritional value back to the earth.

Compostable plastic products are already being explored in applications such as vine clips and other agricultural tools. What sets this initiative apart is its dual focus: creating compostable products while simultaneously tackling the long-standing environmental challenge of gorse. It's a convergence of waste innovation and ecological restoration.

Still in early development, the project reflects the kind of ingenuity gaining momentum across Aotearoa – blending bioplastics with local organic materials to create purpose-built, environmentally smart alternatives to everyday products made here.

While the golf tees are just one example, Koro and Simon's real focus is on the polymer itself – unlocking the potential of invasive biomass to power a new generation of sustainable manufacturing.

Promax Storm Drain Innovation

Stormwater management may not grab headlines, but it plays a vital role in protecting our environment and communities. When systems fail—whether due to sediment build-up, blocked drains, or underperforming infrastructure—the consequences can be significant: polluted waterways, localised flooding, and increased pressure on already stretched public services.

It's in these often-overlooked areas that durable design and material choice can make all the difference.

Plastic, when used wisely, offers a powerful combination of strength, longevity, and low maintenance—characteristics that are especially important for infrastructure solutions. In stormwater systems, for example, long-lasting plastic components can reduce the need for repeated repairs, lowering both environmental and economic costs over the system's life cycle.

A recent example comes from a New Zealand-developed innovation, the **TankGuard® system**, which is designed to protect stormwater detention tanks. Its role is straightforward but important: it helps prevent blockages in outlets and soakage trenches by capturing debris and sediment early in the process. Systems like this support climate resilience by helping stormwater infrastructure operate more effectively, even under pressure from heavy rainfall events.

Made from tough, weather-resistant plastic, TankGuard® reflects how thoughtful product design—paired with the right material—can support better environmental outcomes. While this product is just one example, it's part of a broader shift toward infrastructure solutions that *design out* waste, rather than simply reacting to it. As Promax, the company behind TankGuard®, puts it: “Good design extends the life and performance of infrastructure. When you're using plastic, longevity is a key part of the sustainability story.”

At a time when plastics are often under scrutiny, these kinds of applications are a reminder that the material itself is not the enemy. In fact, when used intentionally, plastic can help protect the very environments it's so often accused of harming.

The key lies in using the right material for the right purpose—and designing for the long term.



Operation Clean Sweep - Plastics Clean Up Week



Clean Up Week this year is **w/c 3rd Nov** and now is the time to schedule your business' involvement.

You Can Be Part of It By:

- Joining a confirmed event - see below
- Hosting your own event - email OCS@plastics.org.nz for more info on how Plastics NZ can support
- Lending a hand with supplies – we need donations of items such as:
 - Refreshments
 - Ice blocks
 - Prizes for competition such as the 'Weirdest Find'

Please email: OCS@plastics.org.nz if you have items/vouchers that you can provide

Events Confirmed:

- AUCKLAND:
 - Rosebank – Wed 5th Nov, 10am – 12pm, [Register here](#)
 - East Tamaki – Thurs 6th Nov, 10am – 12pm, [Register here](#)
- HAMILTON – Thurs 6th Nov, 2 – 4pm, [Register here](#)
- HASTINGS – Thurs 6th Nov, 2 – 4pm, [Register here](#)
- CHRISTCHURCH:
 - EPL, Woolston – Fri 7th Nov, 2 – 4pm, [Register here](#)
- Is anyone able to host an event in Wellington/the Greater Wellington Region?
Reach out to ocs@plastics.org.nz for an info pack.

Thanks to our supporters so far:

- [Duttons Stormwater](#) – for sausage sizzle sausages
- [Aotearoa NZ Made](#) – for the collection bags

Keep New Zealand Beautiful – Clean Up Week



Support KNZB by getting involved during w/c 19 Sept.

More information can be found [here](#).

Switching to Renewable Energy

Our next Lunch and Learn will be held on Tuesday 16th September, 12:30-1pm.

In this webinar [Zen Energy](#) and [Uniplas](#) will discuss switching over to renewable energy.

About our guests:

ZEN Energy recently partnered with Uniplas, a long-established, major Wellington-based plastics manufacturer and exporter, to support them in their plans to significantly decarbonise their operations and improve their energy consumption and costs.

ZEN installed 1,622 solar panels onto the roof of the Uniplas manufacturing premises, currently making it the largest rooftop solar installation in the Wellington region. Not only that, but Uniplas are expected to see an 80% reduction of carbon emissions (2,500 tonnes of CO₂) saved over the building's lifetime, the equivalent of 186K trees being planted contributing significantly towards Uniplas' corporate social responsibility.

Why you should attend:

This webinar will give your business ideas on how to achieve self-sufficiency, resilience and cost savings that most plastics operations haven't even imagined is possible yet.

Did you know:

Energy use in New Zealand accounts for over 40% of the country's greenhouse gas emissions—and a large share still comes from fossil fuels (around 70% of overall energy, and 99% of transport energy). Switching renewables is key to cutting these emissions

EECA emphasizes that renewable energy is critical for both meeting domestic and international emissions reduction commitments. For more info, visit [EECA's](#) website.



Register [here](#)

Members – Free

Non-Members - \$50.00 per person (excl. GST)

News You May Have Missed

- Rachel has reflected on the INC5.2 for a Global Plastics Treaty in Geneva – **read her LinkedIn post [here](#)**

PlasticsNZ's Environmental Committee would like to reflect how momentous it has been to have our head of industry attend such an important global discussion. Whilst Rachel has been involved since the resolution was first approved at UNEA 5.2, it was her first time attending in person.

Physically being there also provided an opportunity to connect with others on the global stage in this space, including a neighbour, Angela Mayer from the Australian, New Zealand and Pacific Islands ([ANZPAC](#)) [Plastics Pact](#) – which is ironic to travel to the other side of the world to be able to have opportunities like this to catch up in person – read Angela's post [here](#)!

- Australia has reaffirmed its commitment to building circular solutions for plastics – particularly soft plastics – read more [here](#).
- Roadsigns & Traffic Control Equipment Ltd (RTL) - has launched NZ's first closed-loop traffic recycling programme – read more [here](#).

Good News Stories

Our newsletter is always needing good news stories to help encourage more mahi in plastics sustainability. If you have any content you can send us, (including any news you see online that could be of interest), we can look at sharing it.

Additionally, WasteMINZ's Construction & Demolition Working Group, that Plastics NZ is included in, are looking for case studies – let us know if there's anything we could share for the upcoming awareness week, w/c 27th October.

An Interview with... Gemma Burnside

This edition we are lucky to be graced with an Interview with Gemma Burnside, Product Innovation Engineer at 3R Group. Gemma was recently 'Highly Recommended' for the WasteMinz 'Waste and Resource Recovery Young Professional of the Year'. We are incredibly lucky to have such a passionate individual on our committee and we're looking forward to hearing what inspires here...

Can you tell us a little about yourself and your role?

I'm a Product Innovation Engineer at 3R Group, based in Hawke's Bay. I've been with 3R Group for almost two years, after interning here when I was studying engineering at UC. I currently work across a variety of fields, from difficult-to-recycle plastics to recycled paint formulation and designing collection and logistics networks. My current focus is designing out system-wide waste, alongside product design from waste by-products. I love tackling a challenging waste stream with no onshore solutions... yet.



What motivated you to join the PNZ Enviro Committee?

Katy motivated me - her enthusiasm for creating sustainable change in the New Zealand plastic industry was inspiring. I also wanted to learn more about PNZ's sustainability initiatives and help where I could.

What's one thing you wish everyone understood about your field of work?

Sustainability initiatives and resource optimisation are often the same solutions by a different name. Plastics manufacturers are recycling their injection-moulding runner waste, deflected products or purge material, or even designing systems where machines are switched off when not in use to save on electricity costs. These are both sustainability initiatives and resource optimisation, which should be shared. While some sustainability initiatives come with an investment cost, in the long run, the payoff usually outweighs any cost.

I'd also add that sharing your sustainability news isn't always easy, but it can be done really well just by being clear that you're controlling what you can and taking steps in the right direction. If the sustainability articles and market promotion don't interest you, focus on the numbers, as these are often in sustainability's favour.

What's one sustainability trend or innovation that excites you right now?

Dollar voting - a decades-old concept with a new name. It's a small thing we can all do, as consumers, which can have a large impact on the demand and production flow of everyday products. You simply take an extra second or two to think about the product's impact and how it aligns with your values before making a purchase. Look at every purchase as a vote for what is important to you. I would recommend choosing one principle that is important to you, whether it be sustainable packaging design, sourced from renewable resources, emissions uptake, locally sourced, ethically sourced, etc, and consider this when making a purchasing decision. Start small and within your budget, then consider adding more sustainable principles to your decisions over time.

If you weren't working in this field, what would you be doing?

I would probably be farming/shepherding with my border collie, Misty. Quite the contrast to my current work, but it's what my family all do and what I grew up doing. I actually still live on the family farm in my own tiny house - a long-held dream of mine which finally came true in April this year!

Thank you, Gemma for these insights. Your mahi on the EnviroCommittee is very much appreciated!

What's On?

August:

TBC: Christchurch OCS NZ Audit Visit – contact ocs@plastics.org.nz to lock your visit in!

September

TBC: DDSP will take place in Christchurch – contact info@plastics.org.nz to register

16th September: Lunch n Learn – Solar Insights from Zen Energy and Uniplas, 12:30 – 1pm, register [here](#)

18th September: Auckland Branch Bowling Event

19th – 25th September: [Keep New Zealand Beautiful Clean Up Week](#)

October

27th – 31st October: WasteMINZ's Construction & Demolition Waste Week – building awareness

November

3rd – 7th November: Operation Clean Sweep – Plastics Clean Up Week!

20th November: Lunch n Learn – LCA Panel Discussion from 3R Group, ThinkStep, and Fisher & Paykel