

MEDIA RELEASE

The tide is turning: Entrepreneur turning post-consumer plastic waste into sustainable surf products

The recipe? 1/3 Australian beach plastics and 2/3 Australian kerbside-collected plastics



29 April 2019, Sydney: Rikki Gilbey of [WAW handplanes](#) - an ethical bodysurfing brand, has launched a first-of-its kind bodysurfing hand-plane made from 100% post-consumer recycled plastics including items commonly found on the beach, such as bottle caps, single-use cutlery and trays. Turning a frustration into action, Rikki worked with Mark Yates, Founder of Replas, Australia, to set up a supply chain many major brands in Australia are still struggling with - creating a direct loop from post-consumer plastics back through to a commercial consumer product.

The product - the “BadFish” - uses the equivalent of one shopping bag full of plastic rubbish and is the first product like this to be produced in Australia with these materials.

Rikki has been producing ethical and sustainable bodysurfing handplanes¹ since 2014. As an avid surfer and bodysurfer, he was frustrated by constantly seeing waste in the ocean environment. “Each and every time I would go for a surf there was rubbish. Walk along the beach, there was rubbish and go for a swim, there was rubbish. And whilst lots of amazing ecowarriors are working on this problem, most of what’s collected from the beaches here in Australia is still just taken to landfill.”

Having limited manufacturing experience and no funding, Rikki sought advice from industry. Most said it couldn’t be done. “They all said they couldn’t use beach plastics because it was too hard to work with, too contaminated, too degraded, the machines won’t process it, and it’s just too expensive,” explained Rikki.

Mark Yates of [Replas](#) - an Australian operation specialising in recycling plastics for over 25 years - agreed to help Rikki. Together, the team were able to source a significant volume of recycled kerbside plastic but struggled to source ocean plastics, as there are no current holding or

¹ Handplanes are small surfcraft worn on one hand, designed to enhance the bodysurfing experience by providing lift and control.

processing facilities in Australia for this material and so most is measured and tracked, but ultimately sent to landfill.

Eventually, a connection led them to [Eco Barge](#) - an organisation engaging with the local community to protect the marine life and aquatic environment of the Whitsunday region and Great Barrier Reef by removing marine debris. They agreed to support the project and hand-processed a batch of ocean plastics - hand-sorting, hand-washing and shredding the material using a team of volunteers.

Fiona Broadbent, Eco Barge Project Coordinator, said, "In the past, marine debris we removed from the region was just sent to landfill, since working with WAW handplanes we have been able to hand process these ocean plastics with our band of volunteers onsite. Closing the loop and creating a circular economy adds value to the waste we are removing, promotes recycling and reduces landfill. Its win win, and Eco Barge are thrilled to be involved in this project."

Replas were able to blend this material with the kerbside material and successfully create a product made of $\frac{1}{3}$ Australian beach plastics and $\frac{2}{3}$ Australian kerbside-collected plastics, along with a small amount of UV stabilizer and colouring.

The process included some of the most common items found on Australian beaches such as bottle caps, single-use cutlery, detergent bottles, trays, 6 ring drink holders, toys and food containers - anything made from High Density Polyethylene (HDPE), Low Density Polyethylene (LDPE) and Polypropylene (PP).

These common items are often not recycled because of the limitations of injection moulding and the problems with compatibilising mixed polymer plastics. Injection moulding requires the plastics to be separated into their unique polymers, be free of contamination and still be durable enough that they can pass through the machinery. Replas uses proprietary equipment and processes developed and manufactured here in Australia that allows them to handle highly contaminated mixed polymers while still producing a quality product.

Whilst the use of ocean plastics here in Australia is in its infancy, Rikki and Mark are focused on sourcing a larger supply and increasing the percentage of ocean plastics for the Badfish and other future products under development. Part of this will be working with Eco Barge and others, but looking to local and state government to support with key infrastructure is another challenge they will be taking up.

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More information on the materials and processes behind the product:

www.wawhandplanes.com.au/materials-and-manufacture

The product is now available for consumer purchase at:

www.wawhandplanes.com.au/thebadfish

Resources available upon request:

- High resolution logos for Rikki's brand WAW handplanes and major partners Replas and Eco Barge
- High-resolution photos of Rikki and his range of 100% post-consumer recycled handplanes
- A range of infographics and design assets to support the content
- Product 'teaser' video

Media contact:

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