

# RNLI makes waves with lifejacket recycling scheme

**The Royal National Lifeboat Institution operates a stringent environmental management system that encourages re-use across the organisation. In addition to launching a lifejacket recycling scheme, it involved WRAP in a waste review that highlighted savings of over £6,000 and 15 tonnes of CO<sub>2</sub>e per year.**

The Royal National Lifeboat Institution (RNLI) is famous for battling the elements to save lives at sea but is less well known for its tough action on reducing waste and carbon. With many initiatives already in place, WRAP was called on to bring a fresh pair of eyes to systems and processes; the resulting Resource Optimisation Review suggested improvements to save over £6,000 and 15 tonnes of carbon equivalent per year.

Supporting the 237 lifeboat stations around the UK and Ireland as well as operating a lifeguard service on over 200 beaches requires significant infrastructure. Along with the stations themselves, the RNLI maintains five operational bases, an inshore lifeboat building centre, training college with a four-metre deep sea survival pool, headquarters based across two buildings, and warehousing. The charity also operates a

## Key benefits

- Realise cost savings
- Reduce carbon impacts
- Reduce waste arisings
- Reduce waste to landfill
- Improved performance
- Generate a revenue income through re-use opportunities
- Communicate recycling achievements
- Utilise funds generated through recycling initiatives to benefit the entire organisation



The RNLI operates 237 lifeboat stations around the UK

road delivery fleet and, in 2014, is set to open an engineering facility to bring all-weather lifeboat production, maintenance and refit in-house.

Priding itself on running to lean principles, the organisation already works to quality and environmental management standards ISO: 9001 and ISO: 14001, and also operates a continuous improvement programme managed by a team of seven. In addition to a general policy on following the waste hierarchy, which includes examining items for re-use and recycling as much as possible, where one-off waste articles are often brought back to life with a new purpose.

Sustainability Manager Anna Frizzell explained: "When an item comes back from our lifeboat stations or lifeguard units there is a set procedure to look at whether it can go straight back into stock, or be repaired and returned to stock. If it can't be re-used by us then we ask, can we sell it to someone else? We try to filter out as much as possible

and then consider recycling before we turn to disposal options as a last resort. For example, some of the awards that we give out are made of metal from old lifeboat propellers.”

Frizzell said that the drivers to seeking WRAP’s Resource Optimisation Review were two-fold: to assist with prioritisation – finding the actions that would result in the most significant impacts – and, second, that WRAP’s expertise would help give weight and gravitas to the activities highlighted.

“Recognition from an external professional organisation validates the work that has already been done; it says well done to the people that have run projects and helps to motivate people to keep going and try new things. The resulting report also provided a discussion document that enables us to start a dialogue on new ideas and, of course, it was able to raise awareness of other initiatives that we might not have thought about.”

### Food waste

One of these areas was the food waste produced in the two kitchens based at the Poole site. Previously, 31 tonnes of the 33.3 tonnes sent to landfill was made up of food waste, resulting, according to Defra Greenhouse Gas calculations, in 17,670kg of CO<sub>2</sub>e. By segregating food waste for anaerobic digestion, the RNLi has successfully cut its CO<sub>2</sub>e output by over 17 tonnes, to just 651kg.

Reducing carbon through more effective disposal is a key priority for the RNLi, but even more important is ensuring that, where possible, waste is avoided. The WRAP review noted that although a number of measures were in place to reduce the generation of waste – such as limiting the number of days on which breakfasts were cooked for residential delegates at the RNLi College, and making sandwiches and salads on the day – the cooked breakfasts consistently resulted in over-production, despite the use of a prediction system based on overnight

Frizzell said that since the review had highlighted the issue, improvements had been made: “All food waste is now recycled and there is a very strong quantity control in the kitchen to reduce the amount of waste

### Key actions

- Identify improvement mechanisms and prioritise quick win actions
- Reduce food waste and separate for anaerobic digestion
- Work with appointed contractors to rationalise waste management
- Innovate to remanufacture waste into quality products
- Invest in recycling to improve performance and reduce costs
- Involve a range of stakeholders

at production as opposed to at the end of service. Leftover food from production is used for salads, soups and casseroles or if, say, they have sausages left over from breakfast, they will make a spicy sausage dish to go with jacket potatoes at lunchtime, or use cold sausages in salads.”

### Waste segregation

Waste management across RNLi facilities has historically been a disparate affair with each site managing its own waste. Even at the Poole site, several contractors were responsible for servicing the different buildings, so one of the recommendations from WRAP involved evaluating the system with the aim of consolidation.

*Extracting recyclables from the general waste stream was also raised as a priority, estimated to save the RNLi £10,000 and 53 tonnes of CO<sub>2</sub>e per year.*

Segregation of paper and cardboard had proved problematic but, following a £4,500 investment in a cardboard compactor and agreement from the waste provider to collect paper and card together, the situation has improved measurably.

Frizzell said: “Although the cardboard was going for recycling, people weren’t compacting it. We have worked out that by compacting it and, based on the reduction in the number of bins and uplifts needed and that the cardboard is now collected free of charge, the compactor will pay for itself in 17 months, after which we will be saving up to £4,000 a year.”

The compactor has proved so successful that the aim is to buy a larger model for the Poole site, which is expected to save around £6,500 a year.

Frizzell said: "We have identified that across all of our sites, we are sending almost 151 tonnes of waste to landfill, which is costing around £19,000. We are actually recycling almost the same in terms of tonnage – 149.5 tonnes – and that is costing just over £12,000 per year. What we are doing now is on two fronts, working with facilities to rationalise, to look across the whole of the Poole site to identify the waste we produce and how many recycling and waste bins are needed. This comes back to the WRAP report, which suggested that we remove individual bins from office buildings to assist in the reduction of waste."

### Textiles

Like many organisations, the RNLI is conscious of protecting its brand and any re-use of textiles must ensure that security and safety are given the highest priority. When the time came to replace 4,600 lifejackets, the RNLI was keen to find a zero waste to landfill solution for those coming out of service, while also helping to cover the £1 million cost required for the new equipment.

Implementing an innovative scheme to remanufacture old lifejackets into heavy-duty bags, wallets and tablet cases for sale was a major undertaking, but after two years of planning and organisation, the product range went live in March 2014.

Frizzell explained: "The range is called 235 Made for Life. The 235 refers to the number of lifeboat stations that were in service at the time that the lifejackets were decommissioned.

*"The items are all handmade in the UK, and each has a swing tag with the signature of the person that made it. They are obviously unique, one-off products, and the money that we get back from the sale of the products will go towards covering the cost of paying for the new ones for the crew."*

Anna Frizzell,  
Sustainability Manager, RNLI

As well as the 235 Made for Life range, manufactured specifically for the RNLI to sell through its online shop, and from which it will recoup 100 per cent of the profits, a second range was produced by the manufacturing partner using recycled life jackets added to virgin materials. These will be sold in independent retailers throughout the UK and will return 20 per cent of profits to the charity. The life jacket project is a pilot, but one that Frizzell hopes will be replicated in future.



The 235 Made for Life range was named after the number of lifeboat stations in operation when the lifejackets were decommissioned

For others thinking of implementing a similar scheme, Frizzell says it is important to include team members from a wide range of disciplines within the organisation. She said: "It became clear very quickly that you need to include the legal team, for example, because there are contracts to consider, and you need to involve marketing and PR experts to ensure that what you produce is desirable and is promoted in the right way to drive sales.

"Delivering such a wide-reaching project requires a variety of skill sets so it's a fantastic opportunity for staff to work together cross-departmentally to achieve a goal that benefits the entire organisation."

## ICT

The WRAP review highlighted a number of activities within the deployment and management of ICT. Exemplar projects already underway included evaporative data centre cooling, which has saved 400,000 kWh per year, a reduction of 90 per cent on one third of the buildings' energy consumption. Costing £80,000 in initial investment, the system is saving the RNLI £43,000 per annum.

The review also suggested a plan for printer consolidation at Poole, which would reduce the 400 desk printers currently in operation to a small number of strategically placed, multi-function devices. This change will save on toners, inks, servicing, power and paper, and is estimated to save 30 tonnes of CO<sub>2</sub>e each year when it is implemented.

Frizzell is clear that WRAP's input has helped the RNLI to re-examine re-use, recycling and elimination of waste, and inspired the organisation to look for even more opportunities to divert waste from landfill.



RNLI training in Poole, Dorset

*"The lifejacket recycling project has just launched, and we have yet to complete the printer consolidation, but the impact of actions so far has been impressive."*

*"We have reduced the number of waste and recycling bin collections required, invested in a card compactor, introduced food waste recycling and already we are saving in the region of £6,400 per year."*

Anna Frizzell,  
Sustainability Manager, RNLI

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