Skye and Small Isles Recycling Project

May 2025

1. EXECUTIVE SUMMARY

Figure 1: Beach litter at Ose Point, Skye. Photo © Simon Finch.

This report provides an overview of the activities undertaken in May 2025 as part of the Skye and Small Isles Recycling Project. Launched in 2022, the initiative is led by the Scottish Islands Federation's Marine Litter Working Group (SIF-MLWG) in collaboration with several local beach cleaning groups, Keep Britain Tidy's Ocean Recovery Project (ORP) and Scottish Coastal Clean Up (SCCU). The pilot project aims to support island communities in transitioning towards a more circular economy by demonstrating alternatives to landfill for managing marine litter within island contexts.

Marine litter, primarily composed of plastics and other persistent materials, poses a serious and growing threat to marine ecosystems, coastal economies, and human health. The impacts on island communities are disproportionate with challenges compounded by geographical isolation, limited waste infrastructure, and strong dependence on the marine environment. Addressing this persistent issue requires targeted and collaborative solutions at local, national, and international levels central to which is improving circularity in waste management systems.

Now in its third year, the project adopts a community-led, collaborative model that aligns with several key policy frameworks including the Circular Economy (Scotland) Act 2024, Scotland's National Islands Plan, and Scotland's Blue Economy Vision. It promotes reuse, recycling, and environmental stewardship through local engagement and practical action.

In May 2025, a coordinated programme of beach cleans was undertaken across several island and remote mainland locations, with a particular emphasis on the recovery of rigid plastics—drawing on lessons learned from earlier difficulties in handling heavy netting and rope potentially combined with lead. The initiative was coordinated by the SIF west coast Marine Litter Development Officer (MLDO), with local groups organising cleans often in partnership with Scottish Coastal Clean Up (SCCU). The Ocean Recovery Project facilitated the collection and transport of recyclable materials to central recycling facilities.

Thanks to the dedicated efforts of volunteers and partner organisations, an estimated 7 tonnes of marine litter were removed from a selection of remote island and mainland shorelines. A significant proportion of this material was diverted from general waste pathways for repurposing or recycling by a selection of UK-based enterprises:

- Shore to Floor (Skye) a local artisan who received suitable rope to produce handcrafted mats.
- Ocean Plastic Pots (Glasgow) received recovered polypropylene fish boxes for recycling into durable plant pots and kitchen ware.
- Milspeed International Ltd. (Gloucestershire) received 235 kg of fishing net for recycling into footwear components and other products.
- MYGroup (Hull) received 520 kg of rigid and mixed plastics for recycling into products such as MYBoard.

The pilot has highlighted the logistical vulnerabilities inherent in remote clean-up operations, especially when reliant on favourable weather conditions, volunteer availability, and capacity for removing litter from poorly accessible beaches – notably boat operations. Additional barriers to alternative waste pathways include the complex composition of beach litter, contamination issues that hinder recyclability, and the high carbon and financial costs of transporting material from remote islands.

Nonetheless, the project continues to develop a scalable, island-based model for marine litter recovery and circular economy implementation. Through robust cross-sector partnerships involving community groups, NGOs, local authorities, and industry stakeholders, the initiative demonstrates that well-coordinated, localised action can yield meaningful environmental and social benefits with promising potential for economic benefits and job creation.

2. BACKGROUND

Marine litter, primarily composed of plastics and other persistent materials, poses a significant and growing threat to marine ecosystems, coastal economies, and human health [1-3]. While it is a global issue, island communities experience a disproportionate impact [4-6]. Ocean currents frequently deposit large volumes of debris on island shores, much of which originates elsewhere, placing an unfair and often unmanageable burden on small, remote communities.

These challenges are exacerbated by geographical isolation, limited waste management infrastructure, and strong reliance on the marine environment for livelihoods and wellbeing. Addressing this persistent issue requires targeted and collaborative solutions at local, national, and international levels. Central to this is improving circularity in waste management systems—minimising waste at source, promoting reuse and recycling, and extending the lifecycle of materials to prevent their entry into the marine environment.

The Circular Economy (Scotland) Act 2024 provides a vital legislative foundation for supporting Scotland's transition to a circular, zero-waste economy. Its provisions—aimed at increasing reuse and

recycling rates and modernising waste and resource management—are particularly pertinent to addressing the challenge of marine litter. Ensuring that island-specific interventions are embedded within this framework is essential to delivering equitable and effective outcomes.

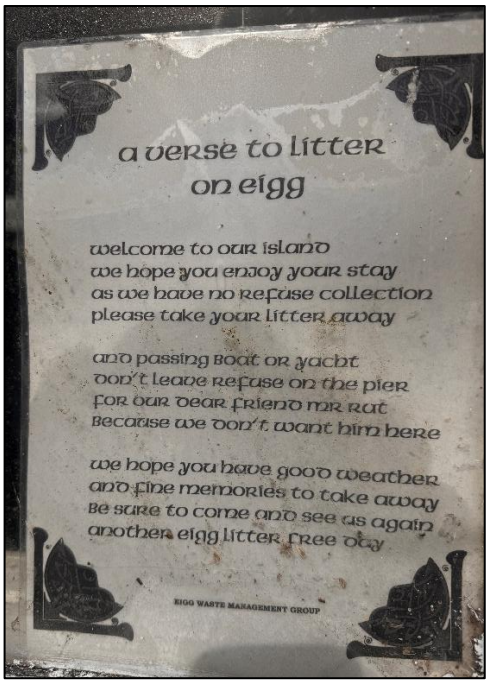
This aligns closely with the ambitions set out in Scotland's National Islands Plan, which recognises the unique vulnerabilities of island communities and calls for sustainable, community-led responses to environmental challenges. Additionally, it supports the objectives of Scotland's Blue Economy Vision, which emphasises protecting and restoring the marine environment while promoting resilient coastal economies. Together, these policy instruments underscore the need for integrated solutions that respect island contexts while contributing to national goals.

The Scottish Islands Federation's *Skye and Small Isles Recycling Project* exemplifies this approach by empowering island communities to embed circular economy principles in their responses to marine litter. Through community-led innovation, capacity-building, and collaboration, the project contributes directly to national ambitions while addressing the specific needs and opportunities of island areas.

3. CURRENT DISPOSAL PATHWAYS

OVERVIEW

Current disposal pathways of collected beach litter are difficult to determine and vary geographically and depending on volume of material collected. Whilst some of the larger islands can generally access council-provided skips for large, organised beach cleans, they are not always provided free of charge which can be prohibitive to community groups organising cleans. Many smaller islands do not have access to such facilities, poignantly illustrated by a notice seen on the Isle of Eigg (Figure 2).



A Verse to Litter on Eigg

Welcome to our island
we hope you enjoy your stay
as we have no refuse collection
please take your litter away

And passing boat or yacht
don't leave refuse on the pier
for our dear friend Mr Rat
because we don't want him here

We hope you have good weather
and fine memories to take away
be sure to come and see us again
another Eigg litter free day.

Figure 2: A Verse to Litter on Eigg. Author unknown. Photo © Scottish Islands Federation.

Once uplifted, Argyll & Bute, Highland and North Ayrshire councils all send their waste to centralised, mainland facilities for processing. The financial and carbon cost of transportation from islands to distant facilities should not be underestimated. Small collections are typically treated with household waste with recyclable elements being separated and removed before the non-recyclable elements are generally sent for incineration for energy recovery. What component of beach litter, if any, is considered recyclable in this context is unclear, particularly if the litter is heavily soiled. Bulkier items such as large

ropes, nets and piping are typically sent to landfill due to the emissions from incineration and/or because they cannot be shredded in advance of incineration.

In the Outer Hebrides, Stornoway's integrated waste management site has an aerobic digester for organic waste (including paper and card), and they divert timber and metal where possible, but other bulk waste goes to landfill. In mainland Orkney, bagged beach litter is mixed with domestic waste and then due to transportation costs only a limited amount of material is sent to the mainland for recycling. The remainder is sent to Shetland for incineration. Bulkier items that cannot be bagged are sent to landfill, as are skip loads of litter due to infrastructure limitations.

UPCOMING LANDFILL BAN

In December 2025 a ban on landfilling biodegradable municipal waste comes into force in Scotland as set out in The Landfill (Scotland) Regulations 2003, as amended by The Waste (Scotland) Regulations 2012 and The Waste (Miscellaneous Amendments) (Scotland) Regulations 2020. This aims to reduce landfill use and greenhouse gas emissions and is part of a broader effort to promote a circular economy in Scotland.

The impacts this ban will have on the disposal of beach litter are unclear. Beach litter is dominated by plastic[5] and other non-biodegradable waste and is therefore not directly targeted by the ban. However, such litter is frequently intermixed with biodegradable material such as seaweed and can be very difficult to separate from it. This poses multiple challenges for incineration: the seaweed may require significant drying before combustion reducing net energy gain; salt can corrode combustion equipment; high ash content leads to slagging, fouling, and operational inefficiencies; and accumulated heavy metals or marine pollutants may impact emissions or ash disposal. Such material is, therefore, typically destined for landfill, and how such material will be processed after the ban is unclear. In litter sinks such as Arrochar, Argyll for instance, the litter is often so degraded and entangled with seaweed and sediments that separation is impractical. The upcoming ban is expected to curtail the recent large-scale removal of the combined deposits for landfill disposal with no clear alternative pathways (pers. comm. J Willis, GRAB Trust).

Concerns have also been raised that the consequential reduction in operational landfill sites, particularly on the islands, will significantly increase disposal costs of marine industry litter (rope, net and pipe) for cash-strapped local authorities as in some areas this looks to be the only items of non-biodegradable waste that will soon still be sent to landfill (pers. comm. W. Murray, Coastal Communities Network). This is of particular concern in areas where authority waste teams currently absorb removal costs to support community clean-ups even from land outside of their responsibilities under the Environmental Protection Act 1990, raising legal and financial questions about responsibility.

A consequence already being felt is the cessation of the Scottish Landfill Communities Fund, on which several island beach cleaning groups have depended for core funding. The closure of this fund has already resulted in the Islay Development Trust ending its operations, and Beachwatch Bute is similarly at serious risk of ending operations by the end of the current financial year. Such groups are often the primary organisers of beach cleaning activities on their respective islands, and the consequential impacts on beach litter will be considerable if they cease activities. The burden of managing this waste may fall to already overstretched local authorities or go unaddressed altogether, reversing hard-won community and environmental gains.

RECYCLING POTENTIAL

Recycling marine litter presents a range of technical and practical difficulties, primarily due to the nature and condition of the materials recovered from the marine environment. One of the foremost challenges is the heterogeneity of plastics found in marine litter. Items such as fishing nets, ropes, packaging, and fragments of consumer waste are often made from a mix of polymer types—including polyethylene (PE), polypropylene (PP), nylon, and polyvinyl chloride (PVC)—which are not always compatible for processing together, limiting the potential options for recycling. In many cases, these

plastics are broken, heavily degraded by UV exposure and seawater, and often lack identifiable markings, making it difficult or impossible to determine their composition without costly testing.

Furthermore, marine litter is commonly contaminated with a combination of sand, grit, organic matter, and chemical residues, all of which complicate the cleaning and processing stages of recycling. These contaminants can damage machinery, reduce the quality of the recycled material, and limit its end-use applications. Effective decontamination is labour-intensive and often not economically viable, especially in remote island settings where access to advanced recycling technologies is limited.

These issues are further exacerbated by the fragmented and inconsistent nature of marine litter collection, where recovered materials may be small in volume and varied in type, making standardised recycling processes difficult to implement. As a result, much of the collected marine litter is either stockpiled indefinitely or ultimately sent to landfill or incineration, undermining circular economy ambitions.

Addressing these challenges requires investment in research and innovation to develop more flexible recycling technologies, as well as support for decentralised, small-scale solutions tailored to the realities of island and coastal communities.

4. Skye and Small Isles Recycling Project

The Pilot Recycling Project, developed under the Scottish Islands Federation's Marine Litter Working Group (SIF-MLWG), was initiated by the then SIF Marine Litter Development Officer (MLDO) in 2022. The project was designed to support island communities in transitioning towards a more circular economy by demonstrating alternatives to landfill for managing marine litter, while also exploring opportunities for job creation within island contexts.

Now in its third year, the project has taken a collaborative, community-led approach involving a series of beach cleans from island and remote mainland beaches, each presenting its own unique logistical challenges. Through the pilot project, some of the recovered material was able to be diverted from traditional disposal routes for repurposing and recycling. This year's recycling focused specifically on the recovery of rigid plastics, following lessons learned in the previous year regarding the prohibitive challenges of transporting heavy rope and netting materials, together with the additional challenges posed from processing lead-weighted rope.

Overall project coordination was led by the west coast Marine Litter Development Officer (MLDO), with individual clean-up events organised by local environmental groups, often in partnership with the beach cleaning charity Scottish Coastal Clean Up (SCCU) who regularly assist remote communities in removing litter from their shores. The transportation and delivery of recyclables to large scale recycling facilities - MYGroup and Milspeed - was undertaken by the Ocean Recovery Project (ORP) of Keep Britain Tidy, with smaller scale recycling/repurposing through Ocean Plastic Pots and Shore to Floor coordinated via the MLDO and SCCU. Through this collaborative effort, the project continues to build a practical model for island-based circular solutions to marine litter.

5. Beach Cleans

Tiree, Lismore and Kerrera

SIF-MLWG has established a successful citizen science programme, in collaboration with the Marine Conservation Society, to undertake quarterly beach litter surveys on the Scottish Islands[5]. Regular survey sites currently include individual shoreline stretches on the Isles of Lismore and Kerrera (Figure 3), as well as multiple stretches on the Isle of Tiree. Surveys on Lismore and Kerrera are undertaken by the MLDO, with collected materials transported from the remote island beaches for analysis in Oban on the mainland. Removal is undertaken by canoe and is dependent on suitable weather windows.

Figure 3: Regular survey beach in Kerrera. Photo © Scottish Islands Federation. Insert – Locations of regular marine litter survey beaches in Argyll that contributed material to the recycling uplift. Source: OpenFreeMap © OpenMapTiles Data from OpenStreetMap.

On Tiree, most surveys are analysed and then disposed of through usual waste management routes. However, through opportunistic support and assistance from local business Derek Wilson Carriers Ltd., materials from some surveys have been transported to the mainland for analysis by the Eco-Committee of Oban High School. Whilst these surveys represent small scale beach cleans – typically between 10 to 100 metres of shoreline – the material collected is sorted during the analysis process, enabling efficient collation of appropriate material across multiple surveys and contributing to the rigid plastics collected from Oban by the Ocean Recovery Project.

NW Highlands

North West Highland Beach Cleans is an informal, community-led environmental group that supports large scale beach cleans and collects data on the weight of litter removed from beach cleans in the area to help inform authorities of the scale of the beach litter issue. In 2024, the group removed a total of 12.687 tonnes of litter from the region.

Figure 4: Volunteers from NW Highland Beach Cleans and Scottish Coastal Clean Up as part of the NW Highlands beach blitzes. Photo © Kerrie Flockhart, Scottish Coastal Clean Up. Insert – Locations of Coigach beach cleans. Source: OpenFreeMap © OpenMapTiles Data from OpenStreetMap.

In collaboration with Scottish Coastal Clean Up (SCCU), the group undertook a series of cleans in the region from the 24-27th April, removing a total of 1,102 kg of litter from six beaches along the Wester Ross Marine Protected Area coastline (Figure 4). Cleans were undertaken at Reiff loch, Camas Eilean Glais, Badentarbet Bay, Polbain, Badenscallie and Altandhu. The SIF MLDO joined the clean-up efforts at several locations and uplifted two bulk bags worth of rigid plastics to be included in the recycling collection. The litter collected at Altandhu was disposed of via a collection point managed by Scottish Wildlife whilst the remaining litter from other sites was collected/disposed of with the assistance of the Tanera Project via their skip.

As part of the series of cleans, SCCU and the Tanera Project also arranged a collaborative beach clean and litter survey on Tanera Mòr, largest of the Summer Isles. Once extracted from the shore, the clean was fortunate in being able to transfer the litter to the *Clan Gordon*, a restored Loch Fyne skiff, for removal under sail (Figure 5). This creative, low carbon waste transport solution highlights the potential for further community climate action and sustainability. Rigid plastics analysed from the survey again contributed to the broader recycling initiative.

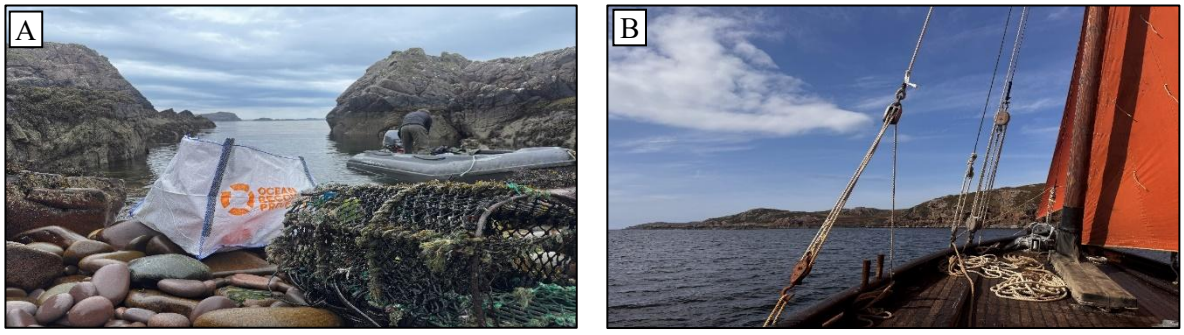


Figure 5: (A) Litter collected from Tanera Mòr awaiting extraction from the remote shore line. (B) Restored skiff *Clan Gordon* - use to transport the litter back to harbour under sail. Photos © Scottish Islands Federation.

Collated litter from Lismore, Kerrera, Tiree and the NW Highlands was subsequently uplifted from Oban by the Ocean Recovery Project en route to the Isle of Eigg (Figure 6).

Figure 6: Collated litter, including the blue barrel which was filled with smaller plastic pieces, from Lismore, Kerrera, Tiree and the NW Highlands awaiting uplift by the Ocean Recovery Project. Photo © Scottish Islands Federation.

EIGG

Much of the shoreline of the Isle of Eigg and the other Small Isles is difficult to access from the road, making the removal of beach litter particularly challenging. In 2024, beach cleans carried out as part of the recycling pilot were successfully supported by the local charter company Selkie Explorers (now trading as Selkie Explore), who coordinated the transportation of collected litter from remote beaches of Eigg aboard *Selkie* to Galmisdale for onward removal. Weather conditions prevented planned collections from the other Small Isles.

Building on the success of this approach, this year a week of beach cleans were planned according to the availability of *Selkie* well in advance of the uplift by the Ocean Recovery Project. Unfortunately, however, Selkie Explore were forced to withdraw at short notice due to unforeseen circumstances that prevented extraction of litter from the shoreline to the *Selkie*. As a result, many of the cleans had to be cancelled with no other available means of extraction from the island's remote shores.

This situation underscores the vulnerability of coordinated clean-up efforts which are heavily dependent on the success of each logistical link, highlighting the need for more resilient and diversified support systems for remote island litter removal.

Figure 7: Neil Hembrow of the Ocean Recovery Project explaining to pupils and staff of Eigg Primary School how beach litter can be recycled into new products such as MYBoard. Photo © Scottish Islands Federation.

Despite the unavailability of the *Selkie*, several other community-led cleans were arranged by Eigg Environmental Action Group around the island at Singing Sands, Laig Bay and with the pupils and staff of Eigg Primary School at Kildonan (Figure 7). The pupils reported on their efforts here. For each clean, litter was manually carried to the nearest road for collection. Following sorting, rigid plastics and fishing net were uplifted by the Ocean Recovery Project with remaining litter disposed of by the usual routes by Highland Council.

Figure 8: Neil Hembrow (Ocean Recovery Project) and Vicki Last (SIF-MLDO) with the combined recycling collection from the Isle of Eigg, and the Oban uplift. Photo © Scottish Islands Federation. Insert – Locations of Isle of Eigg beach cleans. Source: OpenFreeMap © OpenMapTiles Data from OpenStreetMap.

SKYE

On the Isle of Skye, the Bracadale Beach Blitz was a series of community-led beach cleans undertaken from 9–11th May at a series of remote and poorly accessible sites around Loch Bracadale, coordinated by Skye Beach Cleans and the Highlands and Islands Climate Hub. Volunteers, working in collaboration with multiple partner organisations, focused their efforts on areas identified as marine litter hotspots through a combination of local knowledge and preliminary aerial surveys carried out by a local drone pilot. The targeted locations included: Camus Ban / Harlosh (Dunvegan), Caroy (Struan), Ose Point (Struan), Oronsay (Struan), Ullinish (Struan), Struanmore (Struan), and Ardtreck (Minginish) (Figure 9). An additional clean-up was also conducted at Eynort.

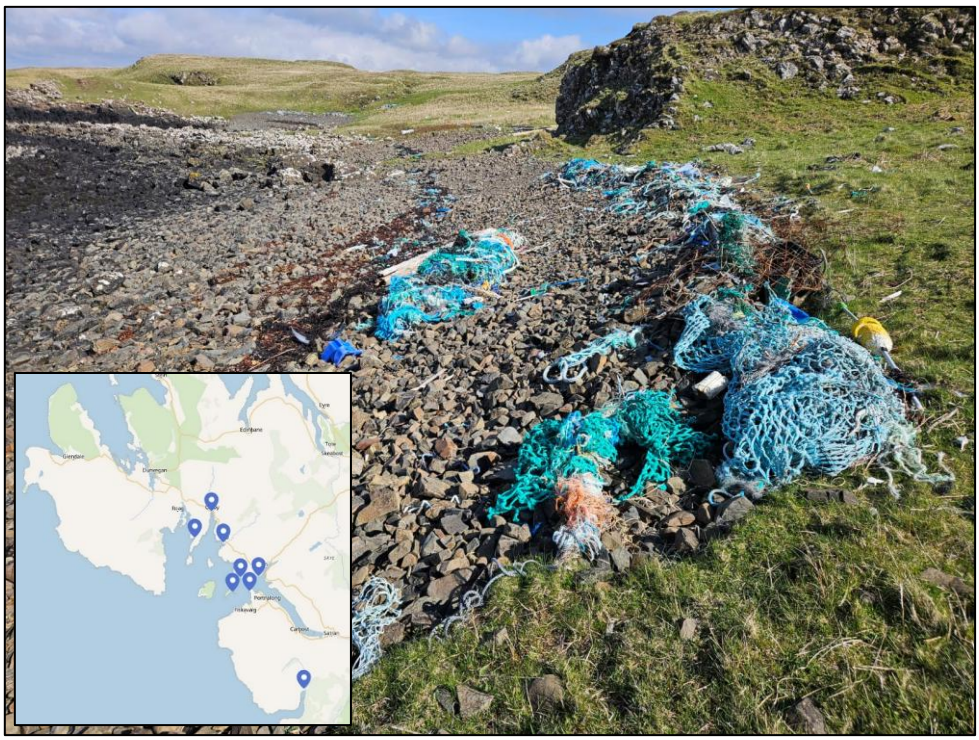


Figure 9: Litter sink at Ose Point, Isle of Skye. Photo © Rob Jopling. Insert - Locations of Skye beach cleans. Source: OpenFreeMap © OpenMapTiles Data from OpenStreetMap

Multiple volunteer teams were dispatched to the various sites to conduct the cleans. Following collection, bagged litter from Loch Bracadale was removed by sea using Scottish Coastal Clean Up's Pioneer Multi vessel *Curlew*. While *Curlew* is well suited to litter extraction from difficult coastal sites, her operational capacity is limited by the availability of suitable weather windows and by load constraints due to her small vessel class.

During the 2023 pilot, adverse wind conditions rendered it unsafe for *Curlew* to operate, resulting in bagged litter having to be left temporarily at shoreline collection points for subsequent removal. Such delays in removing collected material can pose several risks: poorly secured bags may endanger wildlife and livestock, poor weather may risk further disposal of waste, accumulated litter is unsightly, and collections may lead to increased fly-tipping all of which are likely to cause concern amongst landowners. We are very grateful to MOWI Portnalong, therefore, who kindly agreed to collect and dispose of the litter once conditions improved.

This experience once again underscores the vulnerability of coordinated clean-up operations that depend on multiple interlinked logistical steps—each of which may be susceptible to disruption, particularly due to inclement weather. Fortunately, during this year's clean-up, *Curlew* was able to operate safely on two of the three scheduled days. Nevertheless, access to the islands within Loch Bracadale, which had also been identified for cleans, remained inaccessible during prevailing conditions. To speed up the removal, a local crofter volunteered to support the transfer using his own, larger vessel *Te Bheag.* Thus *Curlew* was used to extract the litter from the shore prior to transfer to *Te Bheag* at sea, and both vessels once laden then transferred the litter to the collection points at Harlosh or Portnalong where it was sorted. Suitable materials were uplifted by the Ocean Recovery Project until the van reached capacity, while additional and non-recyclable waste was deposited in skips provided by Highland Council (Harlosh) and MOWI (Portnalong), and subsequently disposed of using usual waste pathways by those respective organisations. Material collected at Eynort was manually taken to the nearest road and also picked up by the Ocean Recovery Project, with unsuitable waste being added to the skip.

Figure 10: Extraction of collected litter from the beach with *Curlew* Photo © Skye Beach Cleans, and (Insert) *Te Bheag* Photo © Ocean Recovery Project.

In addition to the May beach cleans, Skye Beach Cleans also recovered a quantity of trawl net earlier in the year, which was subsequently sent for recycling. The net was secured onto a pallet for ease of collection and transported directly to the Milspeed recycling facility as part of a targeted effort to divert bulky marine plastics from landfill. This collection was facilitated through the Ocean Recovery Project's 'Collect' scheme, which supports the removal and recycling of hard-to-process marine waste by linking local recovery efforts with specialised recycling infrastructure.

Overall, it is estimated that 5 tonnes of litter were removed from the beaches of Skye during the pilot. Of this, 1,640 kg was deposited in the Highland Council skip at Harlosh, and 2,640 kg in the MOWI skip at Portnalong. The Skye beach cleans also made a substantial contribution to the volume of material diverted for recycling. While additional recyclable waste could have been included, the capacity of the collection van limited the amount that could be uplifted. Additionally, a significant volume of black plastic pipework recovered at Ose Point was reported to Salmon Scotland's marine debris reporting scheme and was promptly collected by one of its member organisations.

Skye Beach Cleans estimated that the clean-up effort involved over 360 volunteer hours, contributed by 24 volunteers. Of these, approximately 106 hours were provided by local Skye residents, 216 hours by the Scottish Coastal Clean Up team, and the remainder by other external groups.

Overall, the event demonstrated a strong sense of community engagement and collective commitment to improving coastal environmental health through coordinated action.

6. SKYE OPEN DAY

In addition to organising the beach cleans, and in part to provide a sheltered retreat with refreshments in the event of poor weather, Skye Beach Cleans arranged an Open Day at the Old Struan school on the afternoon/evening of the 9th May. Workshops included:

- A demonstration by Shore to Floor turning waste rope into beautiful mats based on classical Celtic-knot designs,
- A demonstration by Skye Beach Cleans of citizen science beach litter surveys,
- An 'artivisim' workshop by the Highland and Island Climate Hub creating a shoal of fish from beach litter, and
- A display by the Scottish Marine Mammal Stranding Network/Scottish Entanglement Alliance highlighting the dangers that marine litter can pose to marine life.

In the event the weather was stunning, so most volunteers opted to remain on the beaches cleaning, but the workshops were well received.

Figure 11: Open day workshops organised by Skye Beach Cleans. A) Mat making demonstration by Shore to Floor; B) 'Artivism' workshop; C) Knotted mats from shore-collected rope, Shore to Floor; D) Ingested plastic waste from the stomach contents of a recently beached sperm whale, Isle of Skye, together with some of the rope it was entangled in (bucket); E) Sea Entanglement Alliance/Scottish Marine Mammal Stranding Scheme demonstration; F) Litter fish created from collected beach plastic. Photos © Skye Beach Cleans.

Figure 12: SIF's heilan litter coo was also on display outside the school to highlight the dominance of marine industry litter (fishing, aquaculture and shipping) on Scotland's island beaches. Photo © Skye Beach Cleans.

7. RECYCLING PATHWAYS

It is estimated that the combined community-led cleans removed approximately 7 tonnes of litter from the shorelines. Of this, a portion was successfully diverted from conventional disposal routes and set aside for repurposing or recycling.

Figure 13: (A) Mats crafted by Shore to Floor from littered rope. Photo © Skye Beach Cleans. (B) Rebecca Johncocks (Shore to Floor) receiving a collection of gathered rope. Photo © Scottish Islands Federation.

Shore to Floor is a small scale artisan based on the Isle of Skye. They repurpose suitable lengths of good condition rope—typically 15 metres or more, depending on diameter—into hand-crafted mats, and are part of SIF's growing network of artists and makers who specialise in reusing marine plastics and beach-found materials. A bag of collected rope meeting these criteria was passed on to Shore to Floor for small-scale production, demonstrating how creative reuse can contribute to both waste reduction and local enterprise.

Ocean Plastic Pots, based in Glasgow, was founded to tackle ocean plastic pollution by transforming recovered marine plastic into useful, sustainable products. They are able to recycle recovered polypropylene from fish boxes for reinjection moulding into products such as plant pots and kitchen ware. A couple of bulk bags of fish boxes collected during the cleans were delivered to Ocean Plastic Pots for recycling by SCCU.

Figure 14: (A) Ocean Plastic Pots made from recycled marine plastic. Photo © Ocean Plastic Pots. (B) Ally Mitchell of Ocean Plastic Pots during the 2024 recycling pilot. Photo © Kerrie Flockhart, Scottish Coastal Clean Up.

Milspeed International Ltd., Gloucestershire is part of TecnoGi S.p.A. group, a leading global footwear and leather goods reinforcement and adhesives supplier. Through their commitment to sustainability they utilise end of life fishing nets, including those reclaimed beach litter, into footwear components and other products (Figure 15). Milspeed were able to utilise collected nets delivered by the Ocean Recovery Project via their 'Collect' scheme (65kgs) and those delivered directly (170 kg).

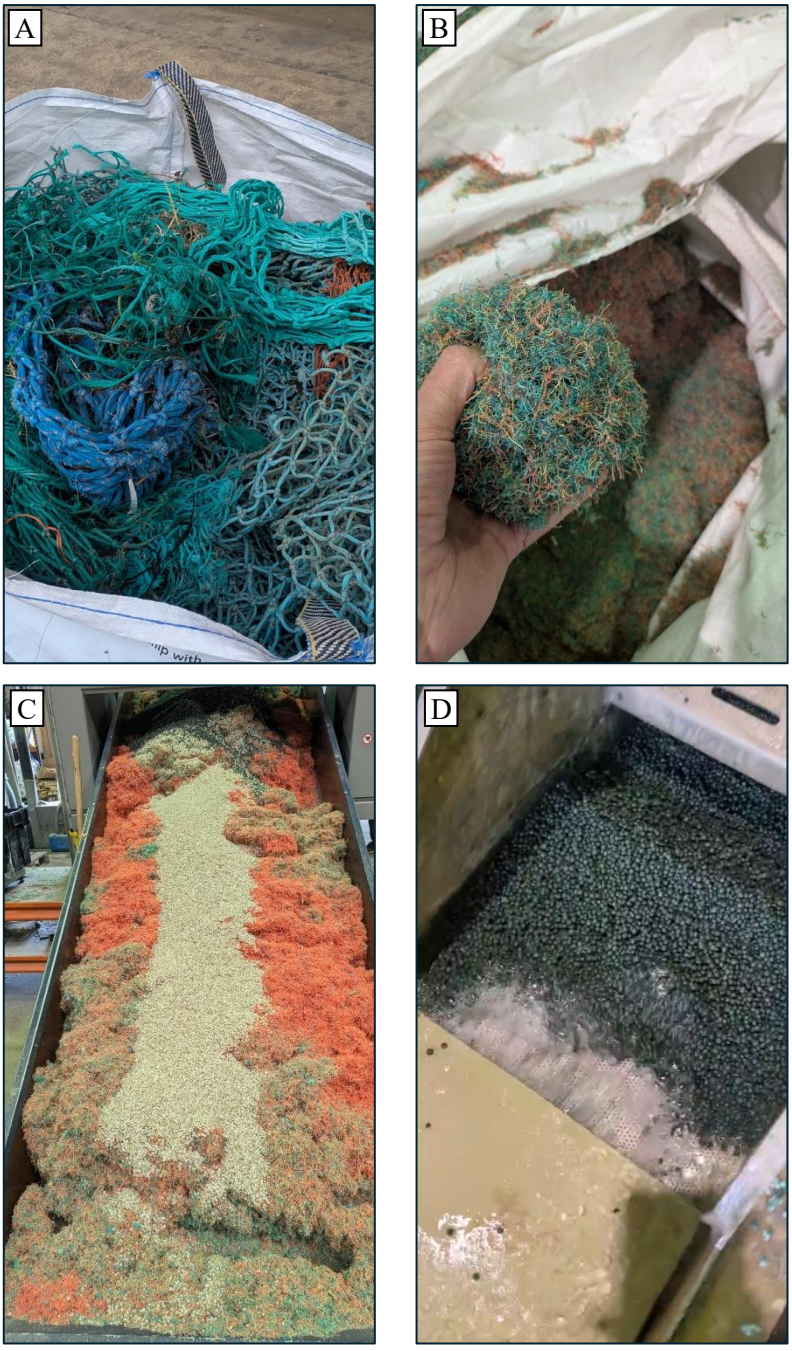


Figure 15: Processing of collected nets by Milspeed International Ltd. (A) Collected nets. (B) Shredded net. (C) Washing process. (D) Washing of pelleted net. Photos © Neil Hembrow, Ocean Recovery Project.

Finally, MY Group is a plastic recycling facility with specialist expertise in environmental sustainability and waste management. Through its subsidiary company ReFactory MY Group explores innovative methods for collecting, recycling, and reprocessing materials—often considered unrecoverable—and manufactures new products in-house, thereby extending the lifespan and adding value to end-of-life materials. As part of this initiative, the MY Group facility in Hull received 520 kg of rigid beach plastics, delivered by the Ocean Recovery Project. These materials, which included degraded and mixed plastics commonly found in coastal clean-ups, will be recycled into products such as MYBoard—a sustainable alternative to plywood. MYBoard is specifically designed to accommodate harder-to-process materials, offering a durable and environmentally responsible solution for repurposing beach litter.

Figure 16: MY Board, a sustainable alternative to plywood produced by the MY Group recycling facility from plastics such as those collected from the beaches during this project. Photos © MY Group.

8. Scope for Expansion

The recycling pilot presents multiple avenues for expansion, both geographically and operationally. There is clear potential to extend the initiative to include additional islands and island groups, increasing coverage and impact across the wider Scottish island network. Parallel to this, growth of the recycler network—at both local and national levels—will enhance processing capacity and material recovery opportunities. A notable recent development includes DekMar Ltd in Aberdeenshire, a relative newcomer to the recycling sector, which has expressed interest in processing reclaimed fishing nets in Scotland, provided materials can be delivered to their facility. Similarly Waterhaul, a Cornwall-based social enterprise and brand that is focused on tackling marine plastic pollution through circular economy solutions, has expressed interest in recycling reclaimed rope although this would currently require transportation to their sorting facilities in Cornwall for processing. Waterhaul are actively seeking funds to establish processing facilities in Scotland.

To support such expansion of the project, island communities will require investment in infrastructure for the temporary storage and sorting of collected marine litter, enabling materials to be aggregated and transported more efficiently in bulk subject to appropriate licencing. Such infrastructure development would also open up opportunities for job creation, helping to secure beach ranger roles or establish circular economy support roles, which could provide valuable local employment while strengthening the islands' capacity to address marine litter sustainably.

9. Publicity

Publicity for the project benefited from an article in the West Highland Free Press - 'Loch Bracadale beach clean up' (29/5/25) and a press release from MY Group. Multiple social media posts were also released by many of the collaborating organisations. Furthermore, Keep Britain Tidy elected to shine a spotlight on the SIF-MLWG and supporting volunteers during Volunteers' Week following on from this project.

10. Conclusion

This report on the Skye and Small Isles Recycling Project highlights both the significant project achievements and the inherent challenges in tackling marine litter within Scotland's island communities.

This year, through the combined efforts of dozens of volunteers and collaborating organisations, approximately 7 tonnes of marine litter was removed from the shorelines of the Isles of Tiree, Lismore,

Kerrera, Tanera Mòr, Eigg, and Skye as well as from some mainland sites in Coigach. The project exemplified a collaborative, community-led approach, with local environmental groups working alongside organisations like Scottish Coastal Clean Up and the Ocean Recovery Project, fostering a deep sense of community involvement.

Figure 17: Locations of cleans and litter surveys contributing material to the recycling uplift. Source: OpenFreeMap © OpenMapTiles Data from OpenStreetMap

A significant portion of this material was able to be successfully diverted from conventional disposal routes for repurposing and recycling at different scales demonstrating viable alternatives to landfill for managing beach litter and showcasing how circular economy principles can be applied to marine litter management in remote settings.

Despite these successes, the project unequivocally highlighted significant vulnerabilities and challenges inherent in island-based marine litter management:

- Coordinated clean-up efforts are highly dependent on multiple logistical links, which are susceptible to disruption, particularly due to inclement weather. Experiences on both Eigg and Skye underscored the need for more resilient and diversified support systems for remote island litter removal.
- The project's success often relied on the "goodwill" of local authorities, businesses and volunteers for skips, disposal, and transport. This reliance underscores a fragile model susceptible to volunteer fatigue and external factors.
- The heterogeneity of beach plastics and contamination with sand, grit, and organic matter present substantial technical and practical difficulties for recycling. These factors often make effective decontamination labour-intensive and hinder economically viable, particularly in remote areas with limited access to advanced recycling technologies.
- The financial and carbon costs of transporting waste from islands to distant mainland facilities for processing are considerable, highlighting the need for investment in infrastructure for temporary storage and initial processing of collected materials on islands to enable more efficient bulk transportation.

Moving forward, the project's findings underscore the necessity for investment and continued strategic development. Expansion of the initiative to other islands and growth of the recycler network, both local and national, are potential avenues for increasing coverage and impact. Furthermore, investment in island-based infrastructure for temporary storage and sorting is essential to enhance efficiency and create valuable local employment opportunities in environmental and circular economy supporting roles.

Ultimately, while challenging, the Skye and Small Isles Recycling Project provides a practical, collaborative, and community-led model for island-based circular solutions to marine litter, demonstrating what is possible when local knowledge, dedicated effort, and specialist recycling expertise converge.

11. SUPPORTING GROUPS / ORGANISATIONS

This project would not have been possible without the invaluable efforts and support from the following organisations.

Scottish Islands Federation, Marine Litter Working Group (SIF-MLWG)	The west coast Marine Litter Development Officer (MLDO) of the SIF-MLWG coordinated the various contributors to the recycling uplift and took part in many of the beach cleans.
Ocean Recovery Project (ORP), Keep Britain Tidy	The Ocean Recovery Project is a project of Keep Britain Tidy that aims to recover and recycle litter collected by volunteer beach cleaners. A small team from the Ocean Recovery Project took part in cleans on Eigg and Skye, and uplifted the plastics for recycling and delivered them to the MYGroup and Milspeed recycling facilities.
Scottish Coastal Clean Up, (SCCU)	Scottish Coastal Clean Up is a beach cleaning organisation based in East Lothian. Teams from SCCU took part in cleans in the North West Highlands and in Skye, and use of their boat *Curlew* was invaluable to facilitate the removal of litter from the shores of Loch Bracadale.
Derek Wilson Carriers Ltd.	Local couriers Derek Wilson Carriers Ltd. kindly transported some of the litter collected during Tiree surveys to Oban for analysis and subsequent addition to the recycling collection.
Eigg Environmental Action Group*	The Eigg Environmental Action Group is a community group based on the Isle of Eigg. Their mission is to protect and enhance the quality of their island through community empowerment and sustainable action. The group coordinated and undertook the cleans on Eigg.
Eigg Primary School	Pupils and staff from Eigg Primary School undertook a clean at Kildonan, Eigg.
Highland Council	The Highland council continues to support the recycling initiative through collection and disposal of non-recyclable material from Eigg, and through provision of a skip for disposal free of charge in Skye.
Highlands and Islands Climate Hub*	Supported by the Scottish Government, the Highlands & Islands Climate Hub supports community-led climate action across the region. The Hub provided logistical support and advertised the Skye cleans.
Living the Skye Life	Bloggers 'Living the Skye Life' participated in beach cleans on Skye.
Milspeed	Milspeed are leaders in sustainability and received the trawl net collected for recycling.
MOWI	MOWI is a multinational seafood company with a farm at Portnalong, Skye. The site continues to support the project

	through allowing use of their industrial skip for litter disposal and assisting with boat operations at Portnalong.
MYGroup	MYGroup is a plastic recycling facility with specialist expertise in environmental sustainability and waste management. Two volunteers from MYGroup assisted with the cleans on Skye, whilst the MYGroup facility received the rigid plastics for recycling.
NW Highland Beach Cleans, (NWHBC)	Northwest Highland Beach Cleans is an informal, community-led environmental group that supports large scale beach cleans and collects data on the weight of litter removed from beach cleans in the region. Over three days, volunteers from NWHBC helped clean five beaches from the Wester Ross Marine Protected Area coastline.
Ocean Gives*	Ocean Gives is a community-led beach-cleaning and marine conservation initiative focused on tackling ocean plastic and marine litter around the Isle of Tiree. Litter from regular beach litter monitoring surveys undertaken by Ocean Gives contributed to the recycling collection.
Ocean Plastic Pots	Ocean Plastic Pots was founded to tackle ocean plastic pollution by transforming recovered marine plastic into useful, sustainable products. They received collected fish crates for recycling.
ReFactory	A subsidiary to MY Group, ReFactory explores innovative methods for collecting, recycling, and reprocessing materials. ReFactory will recycle the rigid plastics delivered through this project.
Salmon Scotland	Salmon Scotland represents the Scottish salmon sector and operates a marine debris reporting scheme for removal of debris that may have come from a salmon farm. Salmon Scotland arranged for the prompt removal by one of their member organisations of the feed pipe and other pipe work reported at Ose Point.
Scottish Wildlife Trust	The Scottish Wildlife Trust, Scotland's leading nature conservation charity manage a series of beach litter collection points through their Living Seas. Their bin at Altandhu was used for disposal of litter collected at this beach.
Selkie Explorers	Selkie Explorers (now Selkie Explore) is a local sailing charter company who supported operations in 2024 by extracting collected litter from remote beaches using their vessel *Selkie*. The original plan was to replicate this successful approach this year, but unfortunately, Selkie Explorers were forced to withdraw at short notice due to unforeseen circumstances.
Shore to Floor	Shore to Floor is a small-scale artisan based on the Isle of Skye who gave a demonstration of how to create beautiful, knotted mats from collected rope at the Skye Open Day. They also received a selection of rope from the cleans for repurposing.
Skye Beach Cleans*	Skye Beach Cleans is a volunteer-led environmental group based on the Isle of Skye, dedicated to tackling marine litter through regular beach clean-ups and public awareness activities. Volunteers from Skye Beach Cleans managed the logistics for the

	cleans on Skye and organised the open day, demonstrating marine litter survey methodology and leading an artivism workshop.
Sustainably Spectrum*	Sustainably Spectrum is an environmental advocate and beach cleaner who took part in both the NW Highland Beach Cleans and cleans on Skye.
Tanera Project **Summer Isles Enterprise Ltd.**	Tanera is a unique restoration and regeneration project in the Northwest Highlands, centred around the largest of the Summer Isles. The Tanera project arranged uplift of most of the material collected from the NW Highland cleans and provided skip access for material not included in the recycling collection. A team from Tanera also organised and, together with the MLDO, undertook a litter survey on Tanera Mòr. Suitable material from this also contributed to the recycling collection.
The Scottish Entanglement Alliance **(SEA) /** Scottish Marine Animal Stranding Scheme **(SMASS)**	The Scottish Entanglement Alliance is a partnership of organisations dedicated to promoting and protecting Scotland's wildlife, heritage and sustainable marine industries. The Scottish Marine Animal Stranding Scheme is the dedicated research and reporting scheme for marine animal strandings. A representative from both organisations provided a display at the Skye Open Day of materials that pose a risk to cetaceans.
* Organisations represented on the Scottish Islands Federation Marine Litter Working Group	

12. FEEDBACK FROM COLLABORATING GROUPS

Kerrie Flockhart, Scottish Coastal Clean Up:

Scottish Coastal Clean Up was proud to be part of the Bracadale Blitz, three days of hard work, collaboration and real impact around Loch Bracadale.

Our boat allowed access to remote parts of the coastline, enabling volunteers and partner organisations to clean areas that are otherwise hard to reach. This kind of support is vital for community-led action in tackling marine litter.

We brought 10 volunteers, who together contributed 216 hours of beach cleaning throughout the event.

It was a privilege to work alongside several other amazing organisations and local community members, all committed to making a real difference on our coastlines.

This kind of collaboration shows what's possible when we bring together local knowledge, on-the-ground effort, and specialist recycling expertise. We're proud to have been part of it.

Neil Hembrow, Ocean Recovery Project:

"We were proud to be part of this initiative that removed a significant amount of plastic from the marine environment. The challenging, remote locations made teamwork across multiple organisations essential to ensure successful collection, removal, and recycling. A job well done."

Camille Dressler, Eigg Environmental Action Group.

Removing marine litter from our many beaches on Eigg is an ongoing task, as each tide seems to bring more. We are grateful to the members of our community who regularly attend to clean and monitor our main beaches, and to our visitors who understand our problem and help gather beach litter during their

walks. Having some of it taken away to be recycled into something useful is fantastic - if only we could recycle it all.

Katy Lawrence, Highlands and Islands Climate Hub.

The Highlands and Islands Climate Hub is proud to highlight the tremendous efforts behind the Marine Litter Recycling Uplift and Bracadale Beach Blitz. These initiatives exemplify the powerful impact that can be achieved when individuals and organisations unite to address shared challenges.

The value of this collaboration is evident in the significant voluntary effort and the considerable number of hours dedicated to cleaning our shorelines. Additionally, it highlights a commitment to circular economic principles through a coordinated approach to reuse and recycling.

Peggy Semler, Skye Beach Cleans

Skye Beach Cleans is delighted by the success of the Loch Bracadale Beach Blitz! This achievement would not have been possible without the incredible support from our partner organisations and dedicated volunteers.

Given the limited recycling facilities for marine litter in the Highlands and Islands, we are especially grateful for the participation of MyGroup and Ocean Recovery, which enabled us to divert a significant amount of hard plastic and netting from landfills.

Thank you all for making a positive impact!'

Geoff Pringle, NW Highland Beach Cleans:

Huge thanks to the SCCU crew and SIF for their recent visit to Coigach to assist NWHBC with cleaning up our beaches. Over three days, 31 volunteers cleaned five beaches and removed a total of 1,102 kg of plastic from the Wester Ross Marine Protected Area coastline. Great to hear that The Ocean Recovery Project will recycle tonnes of this plastic. A fantastic collaborative effort by all involved.

Violet Fraser, Sustainably Spectrum:

Collaborating with beach cleaners and creative recyclers to upcycle and reuse marine debris has been a fantastic experience and a brilliant opportunity to share skills and materials. This has highlighted what strong links between organisations and individuals can achieve, and further our collective mission to clean our beautiful coastlines, as well as utilise all our creative talents and expertise to create attractive and meaningful artwork that communicates the ongoing threat to our environment from plastic pollution.

Steve Carrie, Director, MYGroup

At MYGroup, we believe that real environmental progress happens when innovation meets collaboration. This project across the Scottish Highlands and Islands is a powerful example of that – dozens of passionate individuals and organisations coming together to remove almost eight tons of waste from our shores and give it new life through our advanced recycling technologies. We're proud to play our part in building a circular economy and protecting the places and ecosystems that matter most.

13. LITERATURE CITED

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14. ACKNOWLEDGEMENTS

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