

tidelines

Issue 58 Spring / Summer 2023

newsletter of the Solway Firth Partnership



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Convenor's Column

Rupert Shaw MBE MA, SFP Convenor

My son and I have recently returned from a weekend in Berlin visiting a cousin, where we saw the most effective object articulating the ongoing trauma of the war in Ukraine: an ordinary family car with Ukrainian licence plates and child seat fitted; completely riddled by automatic rifle fire. No signs were needed. No written descriptor could add to the obvious message of this destroyed object.

I'm always looking forward; optimism is a necessity for many human traits from faith through to entrepreneurialism. Impactful objects of smaller scale waste formed the most excellent Solway Hoard Exhibition of 3023 hosted in Kirkcudbright Galleries. Its launch which I had the great pleasure of attending was a real challenge to the optimist. Its objects a call to reflect on our destructive age - a Plastic Age (1950 to 2050) the premise; examining some of our repurposed beach clean litter, with some excellent stories crafted by those of you who took part in our creative writing workshops. As it ran only until April 16th, I wish to reflect on the message I imparted at the launch. The Burnsian gift of the chance to see ourselves as others see us, is a rallying call to mitigate the poor view future generations may have of our time. It highlighted the importance of all beach cleans. Plastics break down to micro plastics to pollute even our species' breast milk.

The Positive Action for a Cleaner Solway Project that we carried out in collaboration with The Museums of the FutureNow, in turn supported by the Scottish Government's Marine Fund Scotland has now finished. However, do keep looking at our Beach Clean dates on the website, follow us on social

media for details and add your own events. It's you, the volunteers that are making a brighter future for our coast.

Looking forward to other opportunities to collaborate I feel is ingrained in the work regime of Clair, Nic and Morag and I am always so grateful to them for their inclusive approach - it is fundamental to this Partnership's ongoing success. It was in this vein that I had the opportunity through South of Scotland Enterprise to place them and myself on a 2 day course at the SAMS Oban Seaweed Academy to examine the fundamentals of seaweed farming. We have all returned with a thorough grounding in both the current opportunities and commercial barriers to Scotland building seaweed based businesses to match those in Norway. What is clear is there may be opportunities within the Solway to establish sustainable and ethical

seaweed based businesses as are being set up on the Argyll coast. Get in touch for more information - not least as SOSE, based on the success of our course, look to sponsor future training.

Farming as I do, spring is evidenced everyday with young stock and wildflowers: it's always with anticipation at this time of year that I begin to yearn for those balmy beach days of summer (not that I don't enjoy a storm tossed wave and horizontal rain on a short winter's day.) We are blessed to have seasons and therefore contrast. Remember there are many reasons to go down to our coast other than beach cleaning. Do please make time for The Solway this summer – the optimist in me hoping that your efforts trigger a love for it in our young – and so, our destructive age is shortened!

Visiting the Seaweed trials at SAMS, Oban



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Photo Credits: Front Cover: Wreck of Monreith at Doon / Dhoon Beach, Kirkcudbright - Nic Coombey, Solway Firth Partnership. Page 2: Seaweed trials at SAMS, Oban, Solway Firth Partnership (SFP); Page 3: Pages 4 – 6: All Photos apart from fungi, Solway Coast AONB; Page 7: All photos Dr Ann Lackie apart from shell and marsh samphire, SFP; Pages 8 – 9: All photos, AOC Archaeology; Page 10: Main photo, Nic Coombey, SFP; Page 11 – All photos SFP, credit to Mike Bolam; Pages 12 – 13: All Photos, Nic Coombey, SFP; Pages 14 – 15: All Underwater Photos, Newton Stewart Sub-aqua Club; Page 15: Photo, Fleet Valley Volunteers; Page 16 – 17: All photos, SFP; Pages 18 – 19: All photos, WWT Caerlaverock; Pages 20 – 21: All photos, Visit Allerdale; Page 22: Dhoon Bay with visitors, Nic Coombey, SFP; Sorry poster, SEPA; Page 23: Dhoon Bay with walkers, Nic Coombey, SFP; Sandyhills, Ian Findlay; Dhoon Bay Beach, SEPA.



Oystercatchers and curlew on the Solway AONB coast



Mawbray Banks



Nature Recovery Workshop

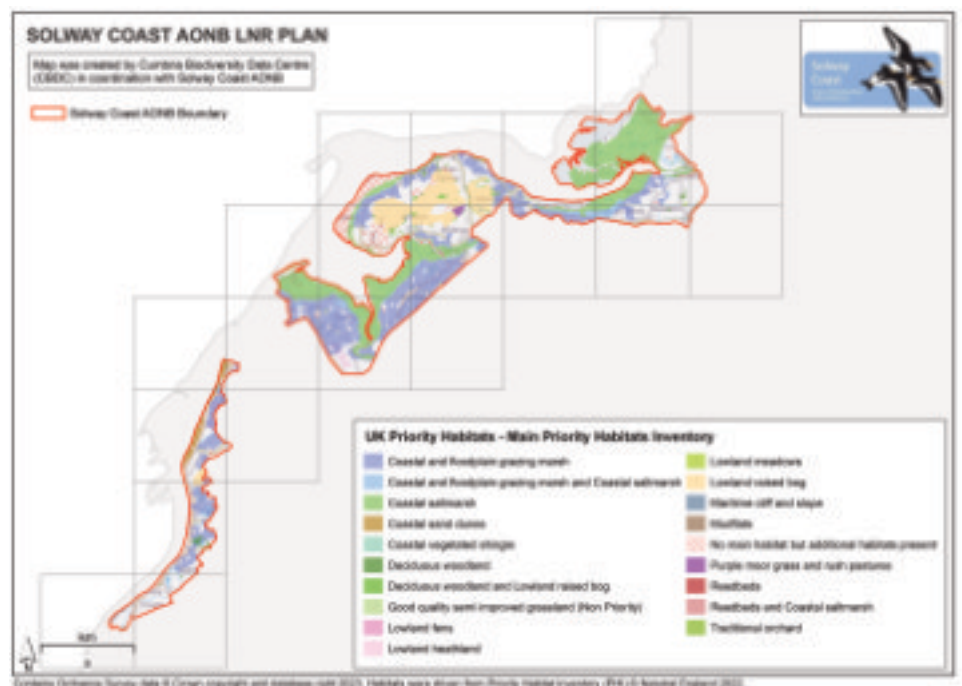
Planning Nature's Recovery

The Solway Coast AONB is renowned for its wildlife; is internationally important for wintering wildfowl and a home for the rare Natterjack toad. Although there is still lots to see in the AONB the habitats and the species that live in them need a helping hand.

In 2019 the 46 UK AONBs collectively signed the Colchester Declaration. Together they pledged to “protect what remains and recover what has been lost in their natural environment”. They have set themselves some ambitious targets. These include improving, restoring and creating 100k Ha of habitat outside of protected areas and removing 30 species from the UK’s threatened species list. To reach these goals every AONB needs a Nature Recovery Plan and the Solway Coast is no exception.

The people that live, work and visit the AONB have noticed that “things ain’t what they used to be”. So, it is not surprising that when the Solway Coast AONB carried out a public consultation for its plan, Nature Recovery came top of the priority list.

In February, the Solway Coast AONB invited nature conservation organisations to start working together



on the Plan. Building on the ideas and concerns shared during the consultation, the plan will set out what the AONB and its partners will be doing to improve nature in the area and how landowners and the public can get involved.

The first step is to get a better understanding of what is already within the AONB and the process has started with the habitats.

A recent mapping exercise by Cumbria Biodiversity Data Centre identified that 60% of the AONB is classified as a UK Priority Habitat, i.e. they are the most important habitats for the purpose of conserving biodiversity. So, it is not surprising that hundreds of protected and rare plants and animals have been seen and recorded in the AONB.

Coastal and floodplain grazing marsh – a priority habitat

Almost a quarter of the AONB is coastal and floodplain grazing marsh and much of this priority habitat is outside of the protected areas. A pristine grazing marsh has a mosaic of different habitats within it, ranging from bare ground to patches of scrub, areas that are mostly dry and others that are permanently wet and is very biodiverse. Much of the UK's grazing marsh has been lost in the past century due to pollution, drainage, development and changes to the way grazing animals are managed. It is also threatened by sea level rises and coastal squeeze.

The extent of grazing marsh in the AONB is why it is an internationally important feeding ground for large numbers of wintering birds, e.g. Pink-footed geese, Widgeon and Golden plover. It is also important for breeding waders such as Snipe, Lapwing and Curlew. The marshes are crisscrossed with ditches and water filled hollows which support a wide range of plants and invertebrates making them great places to look for dragonflies. Working with landowners and land users to increase the amount of grazing marsh and biodiversity it supports will be critical to the success of the AONB's Nature Recovery Plan.

Waxcap Grassland – not a priority habitat

Since the 1930s over 97% of Britain's herb-rich grasslands have been lost and this in turn has affected the fungi that only grow on nutrient poor ancient grassland. Despite this the UK is one of the most important places in the world for grassland fungi, which includes the often brightly coloured and slippery looking waxcaps. At least 12 species of this rare group of fungi have been recorded in the Solway Coast AONB. Although waxcap grassland is so rare, the habitat has no current conservation designation, thus the Nature Recovery Plan has an important role to play in retaining these rare fungi.



Gristly Domecap -
Lyophyllum loricatum
© Strobilomyces

There are less than 140 records of this species in the UK and the only other known Cumbrian location is Whinfell forest.



Dune waxcap -
Hygrocybe conicoides
© G Hampshire

A dune specialist growing on the grassier, more consolidated part of a dune system.



Glutinous waxcap -
Hygrocybe glutinipes
© A Kunze

This species was first recorded on Mawbrey dunes in 2018.

Solway Coast Discovery Day



Milefortlet 21

Sat 8 & Sun 9 July 2023

Allonby, Blue Dial Farm & Crosscanonby Carr

Join the Solway Coast AONB, Natural England and a whole range of partners to a weekend of activities to celebrate and enjoy the new England Coast Path in Cumbria!

Between 10am and 4pm each day, take a walk along the multi-user coastal path from Allonby to Maryport to join in a range of activities to help you enjoy and learn all about the coast, including wildlife spotting, beach mindfulness, photography, wellness walks, Roman re-enactment, art and craft. Drop into Blue Dial Farm on route for a well earned rest and to meet organisations working along the coast with lots of information and activities about how to enjoy and learn more about this very special coastline.

There will be something for all ages and abilities. Borrow an all-terrain Trampler mobility scooter to try out our new access for all paths or join in a Tikes Hike especially designed for the under 5s.

Please note that some activities are drop in and others are timed slots so it's advisable to call in early if you're interested in a particular activity.

For more information, email info@solwaycoastaonb.org.uk or look out for information on the Solway Coast AONB website at www.solwaycoastaonb.org.uk or on our Facebook and Twitter page.

Love Allonby Beach





US Group visit RSPB Campfield Marsh

A visit from the USA

The Solway Coast AONB team were delighted to be chosen to jointly host a visit to the UK from a group of nature conservation and climate change practitioners from four states across the USA. Organised by the US (Los Angeles) Foreign, Commonwealth and Development Office and the British Consulate, the visit was sponsored by the US Climate Alliance and co-ordinated by Defra's Landscapes, Access and People team.

The group consisted of representatives from California, Maine, New Mexico and Michigan and undertook a 5-day visit to UK protected landscapes looking at our experiences and sharing and gathering information about the opportunities and challenges of delivering 30 x 30, the global commitment to protect at least 30% of our land and sea for nature by 2030.

The tour included visits to the Defra offices in London, Brecon Beacons National Park, Peak District National Park, Loch Lomond and the Trossachs National Park and the Solway Coast AONB. They stayed at Hundith Hill Hotel and

the AONB team hosted a dinner to facilitate discussions with partners and kick start the site visits. The following day they were taken on a journey along the Solway Coast AONB stopping off at key sites and meeting partners, farmers and community members at a variety of locations, including Crosscanonby Carr and Milefortlet 21, Mawbray Banks, Holme Cultram Abbey and RSPB Campfield Marsh at Bowness-on-Solway.

Despite experiencing 24 hours of the worst weather that Cumbria had to offer, the delegates really enjoyed their visit, the conversations and visits stimulating discussions on a diverse range of subjects including conservation grazing, access for all, environmental schemes and programmes for farmers, the role of communities in nature recovery, partnership working and more.

A big thanks to all of our partners and local community representatives who gave up their time to be part of the visit.

Visiting Mawbray Banks



Meeting the cows at Mawbray Banks



Dinner with partners



Hanging Stone and honeycomb worm reef at Allonby Bay



Dogwhelk preying on mussels



Marsh samphire, a saltmarsh 'pioneer' plant

Guided Walks on the Solway Shore

As David Attenborough says, "No one will protect what they don't care about; and no one will care about what they have never experienced." So do join Dr Ann Lackie (writer Ann Lingard) to experience the wonders of our shores, on her free low-tide guided walks on the Cumbrian shore at Dubmill Point, Allonby Bay. You'll have a chance to look at the animals and algae that live in and on the shore and on the rocks – including the very special honeycomb-worm reefs, for which Allonby Bay is a Marine Conservation Zone (and now, partly, a Highly Protected Marine Area).

Weather, and other unpredictable circumstances permitting, there will be walks on selected dates in April, July, August and September.

Full details – dates, times, where to meet, what to wear etc – are on the website for Ann's book about the Solway, The

Fresh and the Salt. The Story of the Solway: see <https://thefreshandthesalt.co.uk/shore-walks-events/>.

Accompanied dogs and children are most welcome.

Booking is essential, though, as places are limited: please use the contact form <https://thefreshandthesalt.co.uk/contact/> to book your place.

A short blog-post about 'Strange animals of the Solway shore' is on Ann's Solway Shore-walker blog <https://solwayshorewalker.co.uk/2022/01/24/strange-animals-of-the-solway-shore/> if you want to find out more about honeycomb worms.

And if you join one of the walks, you may be lucky enough to receive one of the Solway Firth Partnership's lovely publications about the Solway's coasts!

Advance Notice: Creative Writing Workshop – the Saltmarsh Experience

Saltmarshes occupy the boundary between land and sea, forming a shape-shifting margin, with special sights, sounds and smells. How would you write about them? On Saturday 7 October, join Ann Lingard for a day's writing workshop at the RSPB Campfield Reserve near Bowness-on-Solway, to immerse yourself in 'the saltmarsh experience', with a wander on the saltmarsh and indoor sessions in the Solway Wetlands Centre. Cost £7.00, hot drinks and snacks provided, but bring your own lunch. Contact Ann through The Fresh and the Salt website <https://thefreshandthesalt.co.uk/contact/> for more details and to book.





Survey work at the North Cairn Radar Station



Last Reveals from the Rhins

The final fieldwork events of the Rhins Revealed Community Archaeology Project have provided some amazing results. We now have the first evidence for the age and history of an enigmatic fortification and the ability to explore a key WW2 site from the comfort of our own homes!

First dates for Mull of Galloway fortifications

The Mull of Galloway, Scotland's most southerly point, has long been something of an archaeological mystery. The thousands of visitors on their way to the dramatic peninsula of the Mull are probably unaware that they pass some of the most substantial earthworks found on the Rhins, the remnants of an ancient defended enclosure. Archaeologists have known about these defences for over one hundred years, but the date of their construction and their function have remained obscure.

This is partly because the two earthworks, which are drawn across the neck of the promontory at East and West

Tarbet, are very different in character. The western rampart is shorter but much taller, standing over 3m in height, while the eastern rampart comprises a series of banks and ditches, all under 1.5m in height, taking a sinuous path over the hillside beyond the narrow neck at East and West Tarbet. Doubt was placed on the date of the features when the site was mapped by the Ordnance Survey in the mid 19th century, when the eastern rampart was considered to be of relatively recent date, perhaps an old field boundary, whereas the western structure was depicted as an ancient fortification.

Excavations carried out in the early 2000s had shown that both ramparts were multi-phase constructions, involving fortification and refurbishment, re-digging of the ditches and addition of new banks and palisade fences. However, a lack of surviving organic material in any of the structures or soils meant that it was not possible to obtain radiocarbon dates from either rampart, meaning that the date of their construction was entirely unknown.

The previous edition of Tidelines reported on the investigations being undertaken at the site last summer as part of the Rhins Revealed project. Volunteers were involved in new excavations led by AOC Archaeology Group with the aim of recording areas of the ramparts being affected by erosion and in the hope of obtaining new samples that might allow their construction to be dated.

Dr Tim Kinnaird of the University of St Andrews collected samples for a dating technique called optically-stimulated luminescence (OSL). This approach is different to radiocarbon dating, and while less precise, can give an indication of construction dates where organic materials don't survive, by estimating age based on the last exposure of sediments to light.

The samples retrieved from the OSL dating programme have now been fully processed and provide the first dating evidence for the fortifications. These results confirm that the ramparts were likely built in prehistory; the western rampart constructed some time after 1700 BC (middle Bronze Age), while the eastern rampart was standing by around 200BC (the middle Iron Age). Tentatively, the outer ditch of the western rampart may have been dug in the early centuries of the Iron Age, confirming that the eastern earthwork is later prehistoric in date and that it comprises part of the largest Iron Age enclosure in Scotland.

Recording the North Cairn Radar Station

In the early stages of the Second World War, the British government rushed to establish a network of cutting-edge early-detection radar stations, designed to provide advance warning of aerial attacks. The Advance Chain Home (ACH) radar network used state-of-the-art radar technology to provide a chain of monitoring stations across the UK, detecting enemy aircraft and relaying alerts across the British defence network.

One of the ACH stations was based at North Cairn, on the west coast of the Rhins. The station was established in 1940 and operated throughout WW2, before being decommissioned after the war. The transmitter and receiver towers were dismantled and removed, but many of the original buildings still stand.

The *Rhins Revealed* project has carried out a new measured survey of the site, compiling a detailed photographic and 3D record using laser scanning and drone photogrammetry. Each of the surviving buildings of the radar station was recorded inside and out to create a new record of the station that will be used as a condition monitoring tool for future condition assessments of the site.

An interactive web page, presenting the results of the survey, and allowing a detailed remote exploration of the site is now available at <https://dgtrails.org/explore-raf-north-cairn/>

The Rhins Revealed Community Archaeology Project is part of the community engagement programme for the Rhins of Galloway Coast Path. The project is managed by Dumfries and Galloway Council and volunteer involvement in the Mull of Galloway and North Cairn fieldwork was enabled by the Historic Environment Scotland Support Fund, the National Lottery Heritage Fund, the Coastal Communities Fund, and Dumfries and Galloway Council.



Top: North Cairn Radar Station Building
Middle: Excavation Work on site
Bottom: Aerial view of the Radar Station site



Beach clean at Knock Bay

Beach Clean Benefits



Over the last 7 months 618 beach clean volunteers have removed over 10 tonnes of litter from more than 21 miles of the Dumfries and Galloway coastline.

As part of the Positive Action for a Cleaner Solway, supported by the Scottish Government's Marine Fund Scotland, Solway Firth Partnership are delighted to have been able to promote the work of volunteer beach clean groups who remove debris washed up on beaches for the benefit of wildlife and the people who visit and enjoy the coast. From regular beach cleans by D&G Eco-warriors and ONUS (Oceans Need Us) SW Scotland to occasional cleans by other groups like u3a they all make a significant contribution to the health of our marine environment.

An aim of the Positive Action for a Cleaner Solway project was to record the benefits achieved through beach cleans. Volunteer groups make our amazing shoreline look more attractive and improve the quality of the marine environment, but we were also interested in how beach cleans provide personal benefits to

volunteers. Solway Firth Partnership undertook surveys to establish what motivated volunteers to participate in beach cleans and how they affect what participants feel. The data

collected will help us understand what health and well-being benefits people gain from being involved in positive volunteer action. Initial evaluation showed that almost all volunteers (98%) find beach cleans a fulfilling activity. Most participants are motivated by the desire to improve the health of the environment (96%), gaining a better understanding of coastal issues (95%) and being part of the community (93%). Although most agree that beach cleans are good for keeping active only a third (30%) found it extremely important – perhaps reflecting the fact that beach cleans do not necessarily have to be physically demanding.

Positive Action for a Cleaner Solway also collected information about where marine debris came from and developed an arts project to take a different view of the problem of plastic pollution in our seas.



Solway Hoard Stories from History of the Plastic Age



The Solway Hoard exhibition hosted by Kirkcudbright Galleries explains the provenance of 'treasures' displayed in a museum set 1,000 years in the future to help us take a fresh look at the role plastic plays in our everyday lives.

From the reliance on fossil fuels in the manufacturing process to the debris littering our shoreline, we are all aware of the problem caused by our careless use of plastic. It may be only with the benefit of hindsight, the material that is so useful to us today will be seen as a global hazard. The durability that makes this material so useful may become a threat as it breaks up into plastic micro particles polluting our world for a very long time.

The plastic 'treasures' displayed in the Solway Hoard exhibition have been found by beach clean volunteers and the stories were created by local people in a series of Museums of the FutureNow workshop sessions held at Logan Botanic Garden, Mill on the Fleet and Dumfries Museum. Many of the items selected are of an unknown origin and were tested at Heriot-Watt University to identify the type of plastic they were made from. The creative process encouraged participants to imagine the future and explain why a mundane waste material has become a treasure with an important role in history. The stories include tales involving protest, agriculture, religion and crime set in locations ranging from Stranraer to Shanghai.

The creation of these stories is intended to shape the conversations we have about plastic and influence decisions we make in the future, however there is also an element of fun added by the fictional misidentification of these found objects. A dog toy is a sacred ornament, a Jif lemon a valuable table decoration and the lid of a bird feeder (above) becomes part of a gyroscope from a futuristic drone.

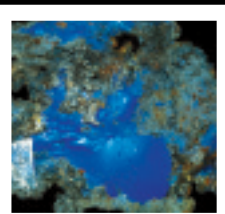
The Solway Hoard from a Plastic Age was inspired by an original story created for the University of Glasgow's Waste Stories project and the Galloway Hoard exhibition held at Kirkcudbright Galleries. The exhibition and accompanying booklet are the result of the enthusiasm of local beach cleaners and participants in writing workshops led by Museum of the FutureNow. Photography by Mike Bolam and graphic design by Ian Findlay helped transform marine debris into precious museum artefacts.

We hope this exhibition will be hosted by other museums and will be a call to action, for both the public and decision makers, to find solutions to the problems presented by our current use of plastics.

The Solway Hoard exhibition is part of the Positive Action for a Cleaner Solway Project created by the Solway Firth Partnership and was supported by the Scottish Government's Marine Fund Scotland.



Exhibition launch



Workshop, Logan Botanic Garden



Plastic gathered by wind and waves



Goose barnacles clinging to container

Where did that come from?

During the Positive Action for a Cleaner Solway project beach cleaners were asked to look out for marine debris with labels or other markers that could be used to identify the place where the debris originated.

When the global market allows goods from far-off places to be sold in local shops it can make identifying the place debris entered the marine environment difficult to ascertain. Detective work and particularly the power of social media has been utilised to establish the source of the debris from near and far. Sometimes marine wildlife clinging to the debris helps to establish the journey the marine litter has taken to reach southwest Scotland.

The following examples provide evidence of the source of marine litter from North American commercial fishers to Irish sports games and Welsh surveyors to drinkers of Spanish hot chocolate.

Marine litter washed up on the shore



Lobster buoy **3,000 miles Rockport,** **Massachusetts – Newbie, Annan**

Static gear used by lobster and crab fishers, such as creels and buoys, are often marked to show ownership or registration port of the fishing vessel. During the project buoys from Peel (PL) and Douglas (DL) on the Isle of Man were found as well as Guernsey (GU). From much further away a polystyrene buoy washed up at Newbie, Annan has the name and registration number of a vessel from Rockport, Massachusetts. The buoy was covered in goose barnacles that provides clear evidence that the buoy had journeyed through tropical / sub-tropical waters of the Atlantic.

Hurling ball **170 miles Ireland – Garheugh** **Port, Machars**

A sliotar, is used in the traditional Irish sport of hurling. It was probably accidentally lost after being hit into a river where it was washed out to sea, floated across the waters to arrive on the Scottish coast. Occasionally the balls are marked with distinguishing names and dates such as FINS 2011 and O'DWYERS 2013 and while we can't know the source of the balls we find on Dumfries and Galloway beaches it is likely that they originated in Ireland.

Chocolate powder **1,000 miles Spain – Southernness**

On a Southernness beach clean a container was found that was covered in goose barnacles. The container is labelled Cola Cao, a unique Spanish hot-chocolate drink loved by children. It must have spent some time floating in warmer seas to allow the goose barnacles to establish before being carried north by waves and currents. Another Cola Cao container was found at Knock Bay on the Rhins of Galloway.



Bait jar **2,000 miles St John's,** **Newfoundland – Larbrax, Bay,** **Rhins of Galloway**

"Scotty" and "Tony's" bait jars are used by Newfoundland fishers in their lobster creels. The bait jars have ridden the ocean's currents to arrive on beaches in Dumfries and Galloway from Rascarrel Bay to Larbrax Bay. On their way to Scotland planktonic larvae wash in through the slots and then grow within the pot. Stalked barnacles, saddle oysters, crabs and what appears to be the remains of squid (only the claw-like beaks remain) have been found inside some of the bait jars.

Survey hard hat **300 miles South Wales** **– Newbie, Annan**

Hard hats are a surprisingly common find although there are rarely any identification marks other than the name of the wearer – anyone know Big Middy? A hard hat branded with Ultrabeam Hydrographic was found on the beach at Newbie, Annan and following a call out on Facebook it was confirmed that it was accidentally lost by an employee working on the coast in South Wales a couple of weeks before it was found.



Conger eel

Diving the Wigtownshire Coast

by Chris Harrison Newton Stewart Sub-Aqua Club Diving Officer



Hermit crab

Newton Stewart Sub-Aqua Club is a small but growing club who, for the past thirty years have been diving the waters of the Solway from our two ribs, which we keep moored at the Isle of Whithorn. Whilst some members are passionate about researching and diving the many offshore wrecks which we have in our waters, a growing number are more interested in exploring and photographing the flora and fauna around our coast. Our best scenic sites are on the stretch of coast from Cairn Head, in Wigtown Bay, around Burrow Head to the south and then north into Luce Bay as far as St Ninian's Cave. Here, where the craggy cliffs meet the sea, they form finger like ridges of rock and reefs which stretch out down to a depth of 18 metres. At this depth the mixed ground shelves away to a silty seabed at a depth of 30 metres. The coast here is subject to strong tidal streams which makes for a dynamic environment particularly enjoyed by filter feeders of all kinds, from plumose anemones to scallops.

All these factors create a region of normally clear waters, which shows wide biodiversity. The finger like ridges are covered with a variety of short and long animal turf including elephant's ear, hedgehog, golf ball and encrusting sponges, dead man's fingers, plumose anemones, dahlia anemones, hydroids and sea squirts. Candy striped flat worms and small bluish northern starfish are in abundance as are burrowing anemones in the sandy troughs between the ridges. Cuckoo, ballan and



Velvet swimming crab

goldsinney wrasse are common as are pollack and small spotted catsharks. The area is also a haven for lobsters and crabs.

The club has used large scale O.S. maps of the coast to identify promising dive sites with names such as Carrickaboys, Devil's Bridge, Rock of Providence, Carghidown, Dykefoot, Stank, Slockanglass and Tailor's Gat which on the Luce Bay coast are approximately 300 metres apart. In general, the same topography is found at each site, but there are minor variations which are also reflected in the sea life present. For example, one site might have a greater concentration of anemones whilst another is notable for the profusion of candy-striped flat worms.

However, the clear water and biodiversity of the whole area make this an exceptionally good area for scenic diving and underwater photography and the club is delighted to have this exciting and relatively unexplored site on its doorstep!

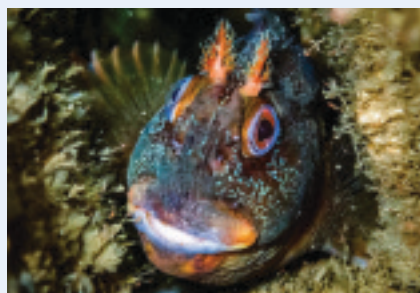
The club is always ready to welcome new members, whether they are already trained or complete beginners who want to give scuba diving a go. The former can be diving with us almost immediately and can then progress their training if they wish as BSAC divers. The latter need to contact us so that we can meet up to discuss and arrange try dives and appropriate training to the Ocean Diver (OD) level.

Find out more about the club on their website – <https://www.nsdivers.co.uk/>

Sea slugs



Tompot blenny



Dahlia anemone



Volunteers take a well-earned rest

Volunteering along the Borgue coast

The Fleet Valley volunteers are regular visitors to the Borgue coast where they keep the access path clear to the Knockbren Hill viewpoint. Twice a year they work with Butterfly Conservation to cut back gorse which threatens the habitat of the northern brown argus butterfly. A good bonfire is always part of this activity.

In the years 2018 to 2021, as part of the Place in the Biosphere project, the Fleet Valley volunteers joined with colleagues from Borgue to clear vegetation from the courtyard of the historic Castle Haven and to remove ivy which was threatening the walls of this historic structure. With the restoration of the Coo Palace as a Home Property Bond facility and the improvement of the coastal path with way markers and a new information board and bench at Castle Haven, the structure has become more of a visitor attraction. Thanks to the continuing work of the volunteers, the courtyard is now a carpet of bluebells in the spring and further volunteer visits help to keep the vegetation under control throughout the year allowing visitors to appreciate the scale and beauty of the site.



Looking out over the Solway saltmarsh at RSPB Campfield Marsh

The CLEARcoasts Project Starts in Cumbria



Environment
Agency



University
of Glasgow



Cumbria
Wildlife Trust



Solway Firth Partnership, Cumbria Wildlife Trust and the University of Glasgow are working in partnership, with funding from the Environment Agency's Championing Coastal Coordination (3Cs) fund, to run the CLEARcoasts Project.

This ambitious 3-phase project (over 2.5 years) will develop innovative methods to identify areas for biogenic reefs (mussel and honeycomb worm), seagrass, and saltmarsh restoration in the Cumbrian Solway Firth, and empower local stakeholders in developing, implementing, and evaluating coastal restoration programmes – in tandem with ongoing work along the Scottish Dumfries and Galloway border – to build sustainable and resilient ecosystems in the Solway Firth.

Coastal habitats around the world are under threat. In England alone, 20% of saltmarsh, seagrass, and biogenic reefs have been lost to development and erosion since 1945. Of the remaining habitat, many are considered to be in an unfavourable condition. The degradation and loss of coastal habitats equate to losses in ecosystem services including carbon capture, flood protection, and mental wellbeing. Public and private organisations are now ramping up action on reversing these losses through enhancement and restoration, whilst simultaneously reaching Sustainable Development Goals, Aichi

Biodiversity Targets, and Nationally Determined Contributions.

During the UN Decade on Ecosystem Restoration, the UK has seen an exponential increase in the size of intertidal habitat being created. Establishing sustainable, resilient, and functioning ecosystems can be transformative for coastal communities, yet schemes risk failing to reach their full potential due to poor community involvement at development, implementation, and evaluation stages, and inappropriate site selection due to limited knowledge and local data on habitat suitability.

The Solway Firth has the potential to be a haven for long-term coastal restoration success. The Firth is one of the least industrialised estuaries in Europe, is an accreting embayment, and has several well-established locally led initiatives to safeguard the site (e.g., the Solway Firth Partnership, Solway Coast AONB, RSPB Campfield Marsh in Cumbria, and WWT Caerlaverock on the Dumfries coast, alongside several environmental designations). Yet, historic overexploitation, intensive management, and disturbance of the marine natural capital has degraded existing ecosystems. The size of the site also means there exists a complex set of competing interests and trans-national policies that add increasing complexity to achieving coastal restoration.



Cai Ladd, University of Glasgow Explains the Mini Buoy Data Logger

SFP secured funding and has just completed Phase 1 which will lay the foundations of the project; buying equipment, setting up a focus group and identifying suitable locations for potential restoration.

If successful in securing funding for phases 2 and 3, the group aims to involve the public and a range of other organisations. Through a series of fieldwork and workshop activities, the group will:

- train and equip coastal champions to monitor intertidal environments using innovative and low-cost hydrodynamic sensors and a customised online App
- develop predictions on the optimal environmental conditions suited to species of each priority coastal intertidal habitat in the Solway Firth

- test how simple modification of the physical environment using biodegradable structures / altering planting and seeding patterns can increase restoration success
- bring together local stakeholder groups to identify common pathways to achieving habitat restoration goals (via intertidal plantation and managed realignment strategies), accounting for environmental, social, and economical priorities
- review / test a citizen science led habitat restoration programme to create long-term guardianship of local coastal habitats and to assess their value as nature-based solutions including coastal flood protection and carbon sequestration.

If you and/or your local group would be interested in getting involved contact SFP on info@solwayfirthpartnership.co.uk

Workshop at RSPB Campfield Marsh



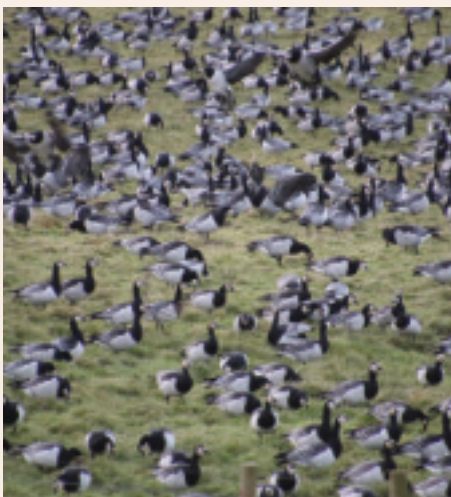
Looking Across to Skinburness





Geese flying over Avenue Tower

A wilder, wetter Caerlaverock



Barnacle Geese

In 2021 WWT Caerlaverock celebrated 50 years as a nature reserve. There are not many reserves in Scotland that have been around that long and over those 50 years so many people have cut their teeth on birdwatching, with many now bringing their children and grandchildren along to do the same.

But in the last couple of years, with a hiatus arising from the pandemic and a whole new staff team working on site, it has been a good time to review the management of Caerlaverock. WWT has made a commitment to create 100 000 ha of new healthy wetlands and where better than to start on their own reserves. You might say Caerlaverock is already wet but there is always room for a bit more water for wildlife. So our aim is to maximise the amount of wildlife that uses the reserve while reducing our own use of resources.

In 1971 the reserve was set up primarily to support the remaining Svalbard barnacle geese that winter on the Solway. But managing only for these geese meant reseeding fields every few years, using herbicides and fertiliser to create bright green fields. But this doesn't leave as much habitat for other wetland nature so we are moving away from that type of management by allowing our fields to become wetter and minimising chemical usage so that we accommodate a wider range of wildlife but still having good grazing for the geese.

Some of our fields were pinched from the saltmarsh by creating floodbanks that kept the highest tides, and therefore the damaging saltwater, off the land. Drains were put in to speed the water off the fields and make them easier to farm. But we are now going to be working to reverse some of these drying out processes by

blocking or removing the drains so bringing the water table back to the surface and creating more wet land. This will provide more places for wildlife all year round but as the land is undulating there will still be drier areas to provide good feeding for the geese.

As well as the large scale management of the fields we have several projects to increase the biodiversity across the reserve. By adding in structures and managing small corners it is amazing how much wildlife can be encouraged into an area. Some of the projects include:

- black-headed gull nesting rafts on the whooper pond
- nesting boxes for declining species such as tree sparrows, barn owls and kestrels
- increasing our areas of wildflower meadow
- setting up rainwater gardens on downpipes of our buildings
- boosting pollinator populations
- using our own sheep fleeces as an alternative to plastic geotextile in path building
- setting up mini ponds around the visitor centre



Sheep fleece in path building



Fish box storage



New nest boxes



Kestrel nest box

We are also looking to change the way we work on the reserve. By getting creative and resourceful by reusing and repurposing we can reduce our carbon footprint. For instance we have had fun working out how to repurpose rubbish collected from beach cleans. Our successes from what we have scavenged from the beach so far include:

- buckets from plastic drums,
- fish boxes for growing salad and for storage,
- scaffold planks for benches
- one of our fantastic volunteers makes amazing baskets from washed up rope.

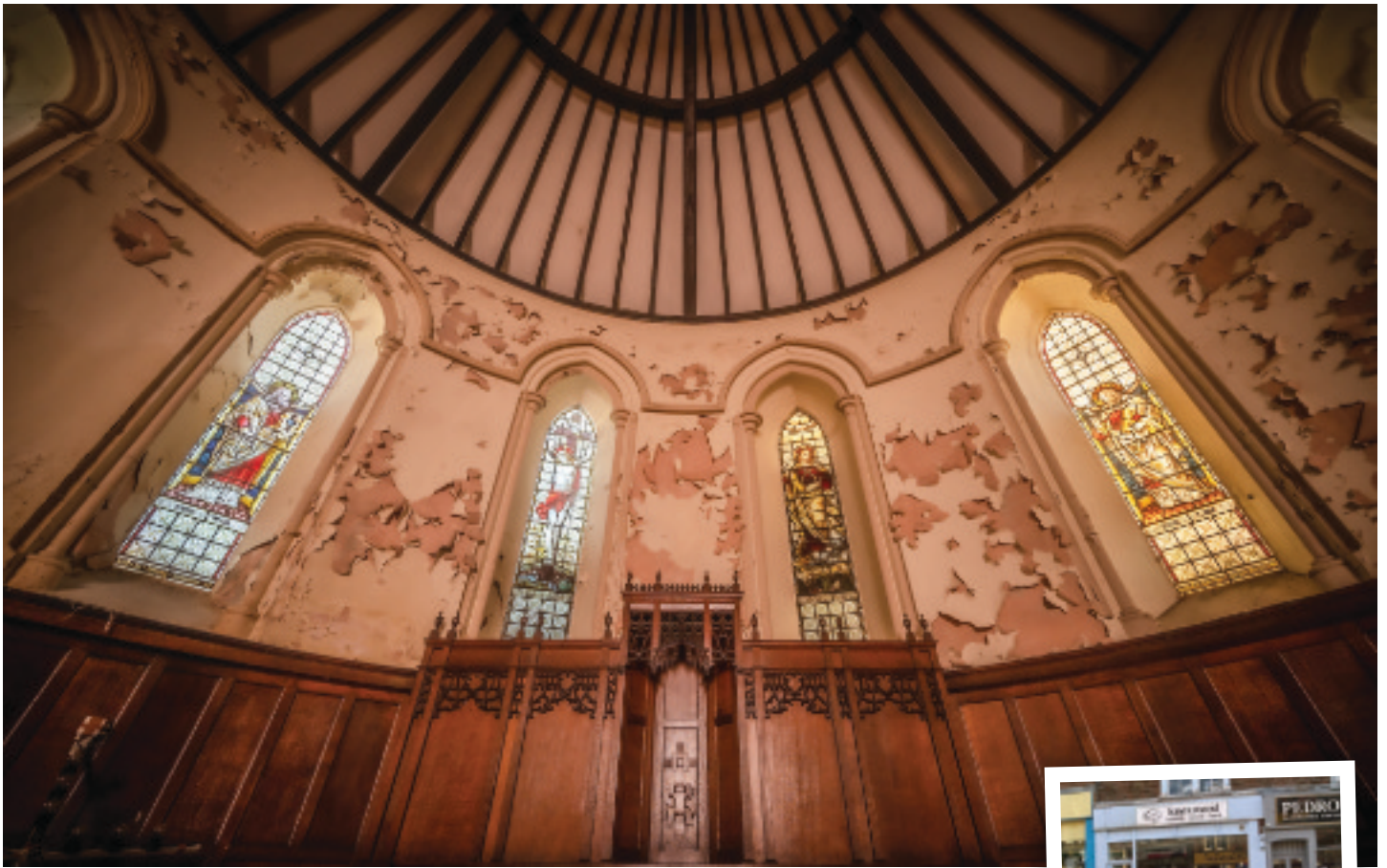
Our best result of reusing was rescuing from the skip the timbers that had come off our neighbour's dairy roof with the best bits being made into tree sparrow boxes and the rest becoming firewood.

Other plans we have to reduce our carbon footprint include:

- Seeing if we can use no herbicide on the site,
- Reconditioning 3 old bikes and purchasing trailers so that our volunteers can get around the site,
- Using compost kitchen waste from the visitor centre in our wildflower planters.

Currently the wilding and wetting of WWT Caerlaverock is a work in progress but we hope that when you visit you will start to see some of the changes take effect. But do keep coming back and watch the reserve develop over the next 50 years to something even better.

Plan your visit to WWT Caerlaverock at www.wwt.org.uk/wetland-centres/caerlaverock/



Christ Church, which will house the new Maritime Museum

Before and after – one of the properties involved in the Shop Front Scheme



A new era for Maryport

By Suzanne Elsworth

There's a sense of optimism in the air in the historic harbour town of Maryport. Millions of pounds of regeneration funding is having an impact, with new homes, visitor attractions and street scene improvements coming to fruition. The money has come from various sources including Historic England, Heritage Action Zone, the Future High Streets Fund, Allerdale Borough Council and commercial partners like Sellafeld Ltd, which has stimulated some private investment from local businesses.

Maryport is one of the gems of the west Cumbrian coast. From its long promenade with views across the Solway to Criffel, alongside its fascinating Roman history, the independent businesses and its working harbour, there is plenty that's appealing for residents and tourists alike.

Regular visitors will spot the scaffolding on the main streets as buildings are brought back to life in schemes managed by Allerdale Borough Council and now Cumberland Council.

In the heart of the town, a shopfront scheme is removing modern additions to the historic buildings, reinstating traditional features and brightening up the décor in this conservation area.

The community has got behind this initiative. Maryport Business Group and West Port Windows, one of the town's largest employers, created the Paint the Town initiative which has made 2,000 litres of free paint available to businesses and residents.

There's a new boost for homes too. Around 70% of upper

floor properties in Maryport town centre are not in residential use, either because they have been historically used as storage for the businesses below, because shopkeepers no longer traditionally live on the premises, or because residential tenants have moved on and not been replaced.

The Love Maryport Living project is revitalising some of those unoccupied spaces, encouraging more people to live, spend and socialise in the town. Sixteen flats are being created or renovated, including in one of the town's landmarks, a former bank on Senhouse Street.

Contractors have just been appointed for the former Christ Church building on the harbourside. It has featured in paintings by the likes of LS Lowry and Sheila Fell and is undergoing a £2,000,000 transformation to become the new Maritime Museum.

The original Maryport Maritime Museum will become Shipping Brow Gallery displaying art which has never been on public display before. They will include Workington-born Percy Kelly whose scenes of Cumbria are famed throughout the world, and Maryport's own William Mitchell, described as 'one of the county's most underrated artists'. There will also be an artist in residence.

Local residents Dolly and Brian Money will show their



New apartments are being created inside this former bank with its distinctive domed roof turret

The new-look Town Hall

private art collection in the new Gallery. Dolly said: “West Cumbria has traditionally been in the shade of Lake District artists but there is a real appetite now for seeing works like this. Maryport has a very arty vibe and we are excited for the gallery to play a part in this.”

Also down on the harbourside the public loos have been decked out in eyecatching new artwork by Maryport artist Alan Roper. The Roman-themed mural is the first project to be publicly unveiled under the Made in Maryport banner and is the brainchild of the Maryport Arts and Heritage Partnership.

Meanwhile, two buildings which top Senhouse Street are playing their part in the town’s revival too. The Town Hall now has accessible facilities, restored original features and

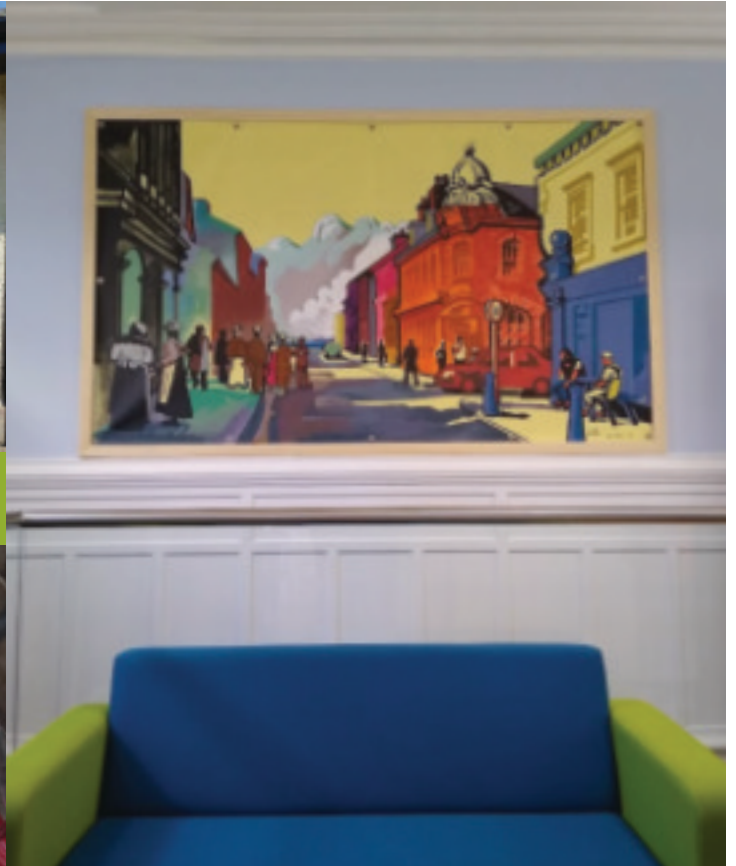
gleaming new paintwork. Across the road is the former Carlton Cinema which is being reimagined as an arts, events and performance centre, complete with sound workshops, studios and an exhibition space.

Attractions like a new Saturday parkrun on the promenade and the Taste Cumbria, Maryport Taste of the Sea Festival are also playing a part in Maryport’s newfound vibrancy. The event takes place on Saturday 12 and Sunday 13 August 2023 and features a big producers’ market, chef demonstrations, fresh fish from the Cumbrian coast and lots of live music and family entertainment. Find out more at visitallderdale.co.uk/taste-cumbria-home



^ The Roman-inspired mural on the harbourside public loos

✓ The original mosaic at the new Shipping Brow Gallery will be restored



^ A painting by Alan Roper in the Town Hall depicts Maryport in 1900 on one side of Senhouse Street, crossing to the present day on the other side of the road.



Dhoon Bay

Success for Bathing Waters in Dumfries and Galloway

SCOTLAND'S BATHING WATERS

Scotland has some of the most beautiful beaches in the world and over 80 bathing waters; officially recognised sites popular for swimmers or other water based activities.

Scottish Environment Protection Agency (SEPA) has a responsibility to test and report on water quality at bathing waters, assigning a classification – excellent, good, sufficient, or poor to each site every year. SEPA's website and electronic beach signs, where deployed, can then advise bathers on daily predicted water quality so they can make an informed choice before entering the water.

Overall, water quality at bathing waters in Scotland is the best it's ever been since 2015 when new tighter standards came into force. In 2023, 85 out of 87 sites are expected to meet or exceed a sufficient classification and 38 rated as excellent – the highest number ever.

However, there can be many and varied negative impacts on bathing waters, often from diffuse sources e.g., contaminants enter rivers from sewer overflows, agricultural run-off from land, surface water discharges from roads, car parks, and pavements. All these impacts can be exacerbated by periods of high rainfall. Septic tanks which are undersized, compromised, or old can also cause impacts.



TIDES ARE TURNING IN DUMFRIES AND GALLOWAY

In Dumfries and Galloway, across 40 short miles, there are seven designated bathing waters: from Southernness in the East to Mossyard in the west. Last year was especially key for bathing waters in our region, particularly Dhoon Bay near Kirkcudbright because it had received a poor classification for four consecutive years, placing it at risk of losing its bathing water recognition.

However, there was a concerted and joint effort by SEPA, Scottish Water, Dumfries and Galloway Council, residents and business owners to identify and address water quality issues at Dhoon Bay; surface water inputs were identified, septic tanks emptied, blockages cleared, and signage erected to encourage appropriate use of car parking and toilet facilities. These measures used a mix of private and public finances with the Scottish Government also

providing some additional funding.

In addition, SEPA continued its long term approach with NFU Scotland and local land managers to reduce diffuse pollution from farming activities across the area. In 2022, SEPA issued a £600 fixed monetary penalty to a farmer for a failure to comply with or contravene a General Binding Rule. The farmer, who had previously been compliant, failed to



Dhoon Bay

prevent significant erosion or poaching of land within 5m of the Corraford Burn, within the Dhoon catchment.

SEPA also continues its work with farmers and NFU Scotland at Sandyhills, leading to sustained improvements to water quality. Having previously been rated poor, Sandyhills has achieved two successive good classifications up to 2022.

All these bathing waters have differing degrees of private sewage systems discharging close by which may influence bacterial levels, and these will require regular maintenance by owners to ensure the discharges do not lead to deterioration in status. In addition, further improvements may need to be made to septic tank infrastructure and/or additional treatment applied to ensure consistent and longer term improvements.



Sandyhills

Dhoon Bay



HELP IMPROVE BEACHES AND BATHING WATERS

Communities and visitors to Scotland's beaches can help protect our water environment, even when they're not at the beach.

It's important people understand what they flush away can have an impact on the environment and their local bathing water. Every year Scottish Water teams deal with around 36,000 sewer blockages, costing customers about £7 million annually, and around 80% of those are caused by people flushing the wrong items down the toilet, or pouring fats, oil and grease down the sink. These blockages in the sewer system can result in spills of pollution into the environment. Whether you are at home, at work or on holiday, Scottish Water provides advice on how to protect the network and look after your septic tank with the Nature Calls campaign. Protecting our bathing waters while visiting the beach is also vital. Waste from animals or litter is not just unsightly, it can have a negative impact on the environment. So, visitors are encouraged to take litter home, clean up after their dogs and avoid feeding the gulls, ensuring a good beach experience for everyone who visits. Find out more at My Beach, Your Beach ([keeptscotlandbeautiful.org](https://www.keeptscotlandbeautiful.org))



For further information, to submit an article or to join the SFP mailing list please contact:
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