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Catchments Newsletter

Integrated Catchment Management: sharing science and stories

Lough Caum photo scoops top prize in the LAWPRO 'My Favourite Waterbody' photo competition

Inside this issue

Main photo: Overall Winner – Lough Caum, Co. Kerry by Raivis Rodenbikers

Top, L-R: Runners-up - Sean Nikken, with his photo of the River Nore at Inistioge, Co. Kilkenny, Brigid Mullooly, with her photo of the River Shannon, in Co. Longford, and Cheryl Poole, with her photo of the River Bann in Co. Wexford.

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Editorial - Momentum is Building

As we move through 2025, it's clear that momentum is building to protect and improve our water catchments. This edition of the Catchments Newsletter is full of inspiring stories—from community-led restoration efforts to innovative farming practices and citizen science projects that are making a real difference on the ground.

Across the country, we're seeing a growing number of initiatives aimed at improving water quality—driven by communities, local authorities, farmers, researchers, and public bodies alike. These efforts continue to play a central role in addressing the challenges we face. While 54% of our waters are in satisfactory condition, 46% are not—and that's a challenge we must continue to face together. Encouragingly, early signs of progress are emerging. The EPA's early insights nitrogen report shows improvements in nitrogen levels in the most impacted catchments in the southeast, which is very welcome. Agriculture is the largest source of nitrogen in our waterways and there are many actions underway by farmers to reduce losses which are starting to bear fruit. However, nitrogen is only one of the elements that is measured in assessing overall water quality – we also monitor biological elements such as plants, insects, fish and algae and the condition of the habitat they live in, as well as chemicals and other physico-chemical elements such as oxygen and pH for example. Overall water quality is assessed using all of these elements.

Looking ahead, the EPA will continue to share early insights and data to support informed action. Later in 2025 we will publish the next Water Quality in Ireland report, which will present a comprehensive view of water quality more generally, where we stand and where we need to go.

There's still work to do, and data alone doesn't deliver change. As highlighted at this year's EPA Water Conference, collaboration, communication, and integration remain essential. We have the science, we have the people, we have the funds, we have the community and the political support, the challenge now is to turn that momentum into implementation.

Thank you to everyone contributing to this shared effort. Let's keep the momentum going.

Jenny Deakin and James Petrie, Editors

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catchments.ie shares science and stories about Ireland's water catchments, and people's connections to water.

Have a story to tell?

We want to tell stories than help people understand the connections between them, their local community's environment, and enhancing human health. We also want to promote public participation.

If you have a story for a future issue, please get in touch via www.catchments.ie/contact/ or scan the QR code.

We want these stories to inspire more people to take part in looking after their local community's environment, and particularly our waterbodies.

The New Water Action Plan for Ireland

(L-R) At the launch of the Water Action Plan at Grennan Mill in Thomastown, Co. Kilkenny Minister of State for Housing, Local Government and Heritage, Malcolm Noonan, TD, Minister for Children, Equality, Disability, Integration and Youth of Ireland, Roderic O'Gorman TD, Anthony Coleman Director of Services at LAWPRO & Mags Keegan Regional Coordinator at LAWPRO.

Ireland's roadmap aimed at protecting and restoring rivers, lakes, estuaries, coastal waters, and groundwaters.

The new plan sets an ambition for an additional 300 waterbodies to achieve 'good' status by 2027, with targeted measures to improve over 500 more. Key actions in the Plan include tighter controls on the use of fertilisers that impact water quality, a greater focus on compliance and enforcement with over 60 new staff at local level, and a target of 4,500 farm inspections per year.

LAWPRO was established in 2016 to facilitate a regional approach to co-ordinate the catchment management and public participation elements of the Water Framework Directive (WFD) and to serve as a national WFD office. The WFD is an EU framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater. It aims to prevent and reduce pollution, promote sustainable water use, protect and improve the aquatic environment and mitigate the effects of floods and droughts.

LAWPRO's primary role is to support the achievement of the WFD objectives through the development and execution of River Basin Management Plans and accompanying Programmes of Measures. These plans and measures are reviewed and updated every six years, and we are now in the third cycle River Basin Management Plan.

LAWPRO has six programme areas, which combine to deliver on our strategic goals and the actions assigned under the Water Action Plan 2024. LAWPRO is uniquely placed to work with all stakeholders to deliver on the overall objective of improved and protected water quality.

Commenting on the publication of the Water Action Plan, Anthony Coleman Director of Services at LAWPRO said:

"The Water Action Plan is a further significant step towards protecting water quality across our island. It is LAWPRO's role to support regional implementation of the 'right measure in the right place' on a catchment level. We ensure a consistency in approach to water quality measures across all local authorities in Ireland. We do this through our Communities Team engaging with the general public and the myriad of community and voluntary groups that have a keen interest in their local water bodies; the catchment science and management work in Priority Areas for Action and by implementing the new Farming for Water EIP Project in partnership with Teagasc / ASSAP and Dairy Industry Ireland.

As part of the third cycle, we also welcome the commitment to review the work of LAWPRO to determine the level of resources required to meet Water Framework Directive objectives".

Catchment Community Fora

Some of the River Boyne Workshop Participants at the end of the Catchment Community Fora workshop on Wednesday 26th June in Navan.

An ambition in the Water Action Plan is to determine the supports needed for the formation and capacity building of local forums. These forums will identify and support implementation of measures to protect and improve water quality that meet the needs of communities and other sectoral interests. New Catchment Management Work Plans and supporting Sectoral Action Work Plans will be developed with an increased level of public participation through new Catchment Community Fora.

LAWPRO ran workshops last Summer using one pilot catchment per region to explore and develop a community forum model that will be rolled out across all 46 catchments in Ireland. The process went very well, and we gathered the opinions, ideas and suggestions from passionate individuals across various catchments. These pilots will be used to develop a framework for a model on a national scale.

First National Regional Operational Committees Plenary

Attendees at the first National Regional Operational Committees Plenary.

On the 6th of November 2024, after the launch of the Water Action Plan for Ireland, LAWPRO hosted the first ever National WFD Regional Committees Plenary in Portlaoise, Co. Laois. For the first time ever, this event brought together implementing bodies and members from all 5 Regional Operational Committees (ROCs), and all 5 Regional Water and Environment Management Committees (RWEMC) established under previous River Basin Management Plans governance structures, to inform members on the recently published 3rd cycle River Basin Management Plan.

A total of 160 people attended the event representing 53 implementing bodies from across the country. The plenary had three sessions primarily focused on how the Water Action Plan 2024 will be implemented, and the important role WFD Regional Operational Committee members will play within the governance structure.

A Look to the Future

This year LAWPRO is hosting community information meetings in all Municipal Districts in the country. Under the Water Action Plan 2024 LAWPRO carries out work in areas identified as having poor water quality called Priority Areas for Action (PAAs) to support targeted water quality improvements by state bodies and local authorities. These community information meetings are being held to increase awareness about water quality work in the area and to encourage as much engagement as possible with all stakeholders right across the community including key agencies, special interest groups, voluntary, public and private sectors. For further information on the work of LAWPRO visit: www.lawaters.ie

Lough Caum photo scoops top prize in National Photography Competition

One overall winner and three runners-up have been selected in the 'My Favourite Waterbody' national photography competition that was run as part of the Local Authority Waters Programme (LAWPRO) World Water Day celebrations. Photos of the winners are featured on the front cover of the magazine, showcasing the stunning imagery that captured the judges' attention.

The overall competition winner is Raivis Rodenbikers, from Tralee in Co. Kerry for his photo of Lough Caum, Co. Kerry (Front cover – main photo). Raivis won the top prize of a €500 voucher for Powerscourt Hotel Resort and Spa in Co. Wicklow along with a framed print of his winning photo.

LAWPRO received 375 competition photos, which were shortlisted by an internal panel and the winners were selected by an external judge, the well-known environmentalist, wildlife expert and author Éanna Ní Lamhna.

Speaking about the photo competition Éanna said: *"This year's photo competition was a celebration of the personal connections people have with their favourite waterbodies. People were asked to share photos of the places they love; the rivers, lakes, and wetlands that speak to their hearts and they responded with images full of beauty, atmosphere, and emotion. The best entries didn't just show a scenic view, they invited us in to imagine ourselves there too. Whether it was a tranquil boardwalk scene at sunset or a frosty Winter morning on a riverbank, each photograph told a story of appreciation and belonging. The winning images capture not only technical excellence but also a real sense of place, you can feel the love and familiarity behind the lens."*

LAWPRO's Community Water Development Fund 2025

Over €1m in Grants Awarded for Water Quality Projects Nationwide.

(L-R) Mags Keegan, Regional Coordinator, Minister for Children, Equality, Disability, Integration and Youth of Ireland Roderic O'Gorman TD, Malcolm Noonan TD (right) Minister of State for Housing, Local Government and Heritage, Sheevaun Thompson (Funding Lead) and Anthony Coleman Director of Services at Local Authority Waters Programme (LAWPRO) pictured at the launch of the Water Action Plan 2024 at Grennan Mill on the River Nore at Thomastown, Co Kilkenny. Photo: michaelorourkephotography.ie.

Since 2018, on behalf of the Department of Housing, Local Government and Heritage, LAWPRO has made over €3.7m available through this funding scheme to communities, assisting in the implementation of the Water Framework Directive through Ireland's Water Action Plan. This year, LAWPRO awarded €1,047,265.26 in funding across 54 projects in 24 counties under the 'Community Water Development Fund Open Call 2025'.

Types of projects approved for funding under this year's open call include:

- River conservation, restoration and rehabilitation initiatives.
- Nature-based Solutions projects.
- Preparation of reports: feasibility studies, habitat management plans, ecological surveys, and hydromorphology studies.

A full list of the awarded grants can be found here: www.lawaters.ie/funding

LAWPRO's Catchment Support Fund 2025

Over €800,000 to Support Community Groups Involved in Water Quality Management

Launching the Catchment Support Fund 2025 at Lough Ree (L-R) Barry Deane, Regional Coordinator, Mags Keegan, Regional Coordinator, Dr Fran Igoe, Regional Coordinator, Sheevaun Thompson, Funding Lead, Anthony Coleman, Director of Services, Jimmy McVeigh, Regional Coordinator and Dr Bernie White, Regional Coordinator.

The Catchment Support Fund launched last year as a direct response to the Resilience Pilot Project Evaluation and an external review of LAWPRO's other fund - the Community Water Development Fund. Both reviews indicated that funding was necessary to build capacity in local groups to support Ireland's third River Basin Management Plan, the Water Action Plan 2024.

LAWPRO awarded €856,260 in funding to 40 community groups in 19 counties under the 'Catchment Support Fund Open Call 2025'.

Over €500,000 was awarded to 37 organisations in 2024. The 2025 allocation will help build the capacity of non-governmental organisations focussed on water quality by providing funding to enable them to achieve their goals.

The funding will support a diverse range of projects nationwide including:

- River and catchment conservation: initiatives to restore and protect local rivers and their ecosystems.
- Community engagement: programmes that promote water stewardship and raise awareness about water quality issues.
- Biodiversity enhancement: projects that support habitats and species dependent on clean water.

A full list of the awarded grants can be found here: www.lawaters.ie/funding

‘Testing the Waters’ Project in Westport Town

A new art installation at the Carrowbeg River in Westport Town aims to spark debate about the role of water quality, sustainability, and biodiversity in Irish towns.

(L-R) Anne Kearns Co Centre, Paddy Murray (Westport Tidy Towns), William Bock artist, Eithne Larkin (Chairperson of Westport Tidy Tows), Éanna Hyland (Community Water Officer LAWPRO), Rhona Chambers (Westport Tidy Towns), Luke Drea (Senior Community Water Officer LAWPRO), Ed Alyward (Westport Tidy Towns).

Funded by the Research Ireland Discover Programme, Testing the Waters is designed in collaboration with Westport Tidy Towns to connect them with scientific experts and inform a debate in the locality about what a ‘clean river’ might mean. Is a ‘clean’ river one which looks tidy but may have poor water quality, or one which could be perceived as untidy but is rich in biodiversity with higher water quality?

Local artist, William Bock, will create an installation informed by the local communities and specialists in water quality, soil and biodiversity. The installation aims to focus the conversation and generate interest across the town in the project.

Community Water Officer Éanna Hyland carrying out a kick sample

A series of talks and workshops will be held to address some of the concerns raised by the artwork such as how to preserve the heritage of the built environment when introducing biodiversity to the town, how history has shaped the river and current climate challenges, how art can play a role in activism, and who is responsible for the river’s management going forward.

Alongside the creation of this art piece there will be a citizen science project to measure the impact of natural growth in the river for biodiversity. The local community will work with LAWPRO and experts from the Co-Centre for Climate + Biodiversity + Water to monitor the quality of water in the Carrowbeg River through the Citizen Science Stream Index, before, during and after the installation. This also aims to increase understanding of water quality and increase the public’s connection to the river.

Eithne Larkin, Chair of Westport Tidy Towns, said:

“Water is an essential and invaluable resource that surrounds us - in our homes, landscapes, and the ecosystems that sustain our lives and communities. We are proud to partner in this project, which aligns with a core aspect of our work, particularly in relation to Article 14 of the Water Framework Directive. Only through honest, open dialogue that engages all stakeholders and is rooted in science-based education can we truly protect and enhance our water environment.”

The ‘Testing the Waters’ programme is led by the Co-Centre for Climate + Biodiversity + Water in partnership with Westport Tidy Towns, The Local Authority Waters Programme (LAWPRO), and artist William Bock.

A Resilient Community Supporting a Resilient River

Celebrating recovery, a theme in North Clare during the May bank holiday weekend.

River Walk - Ennistymon Rivers Festival - 3 May 2025 - Image taken by Ruairí Ó Conchúir.

Over the May Bank Holiday weekend, the Restore Ballymacraven River Association (RBRA) organised and delivered the hugely successful inaugural Ennistymon Rivers Festival. The RBRA is a local, community-based organisation based in Ennistymon, North Clare, established following a major fish kill on the Ballymacraven River in May 2023. This terrible event, which killed over 2,000 fish, including Atlantic salmon, brown trout and eels, of all age-classes, on a 2.6km stretch of the Ballymacraven River, served as a reminder of the fragility of our natural environment. It also sparked a collective response by the local community to protect this river for future generations.

Exactly two years on, the 3-day festival, offered an opportunity to celebrate the enormous amount of positive work that has been undertaken by local volunteers on the Inagh and Ballymacraven rivers since May 2023. The festival brought together locals, volunteers, an internationally renowned salmonid expert, and environmental champions from across Ireland to mark the positive steps taken to restore the rivers of North Clare.

Kevin Nunan RBRA Chairperson at the Ennistymon Rivers Festival (2 May 2025) - Image taken by Ruairí Ó Conchúir.

At the official launch of the Ennistymon Rivers Festival, the RBRA Chairperson, Kevin Nunan, welcomed all, and noted that *"we are here to celebrate a resilient community, supporting a resilient river".* He went on to state that *"a major part of the work of the Restore Ballymacraven River Association is to develop a collaborative model to improve local water quality in the Inagh and Ballymacraven rivers, and to increase our understanding of the role and function of rivers, river corridors and river catchments, including our own understanding of their biodiversity, economic or social value from source to sea. This work could not be done without the support of local volunteers and new volunteers are always welcome."*

Over the weekend nine free events were staged, with hundreds of people participating. The events included a river restoration workshop and fieldtrip, keynote presentation by Dr. Philip McGinnity on the current status of Atlantic salmon, followed by a panel discussion, walks and talks on bats, river ecology, riparian management, connecting with nature, and kayaking on the Inagh River. All of those who took part were there to celebrate the wonderful richness we have in our local rivers, lakes and coastal waterbodies.

Áine Bird CEO Burren Beo at the Ennistymon Rivers Festival - May 2025 - Image taken by Ruairí Ó Conchúir.

Senior Community Water Officer with LAWPRO for the South West Region, Ruairí Ó Conchúir noted: *"the festival provided an excellent example of a local community displaying real leadership in river restoration and water quality awareness work. The festival showcased the vital role a resilient local community can play to restore, protect and enhance their local rivers, ensuring that the Inagh and Ballymacraven rivers, that flow through North Clare and Ennistymon, remain a symbol of hope, community resilience and the resilience of nature."*

He further noted that *"the work of LAWPRO is fully supportive of community groups, river and catchment management associations, playing an active role in raising awareness and undertaking evidence-based works to restore, protect and enhance local waterbodies".*

The work of the RBRA is supported by LAWPRO, Inland Fisheries Ireland, the Falls Hotel and a great many active local volunteers. Anyone wishing to find out more information about the RBRA please visit their website here: www.restoreballymacravenriver.com.

Nore Vision - Farmer-led Water Quality Project in Kilkenny

From pilot project to cross county collaboration.

Ponds after their creation in the pilot project in Kilkenny.

The Nore Vision project, based in Co. Kilkenny, is a farmer-led initiative aimed at improving the water quality of the Nore River through nature-based solutions. This project has recently received €23,865 in funding from the Local Authority Waters Programme (LAWPRO) under the Community Water Development Fund (CWDF) Open Call 2025. The funding is part of a larger €1,047,265.26 national allocation to various local communities and groups across Ireland dedicated to enhancing water quality and biodiversity in various water bodies throughout the country.

Founded in 2021 by the Nore River Catchment Trust, the Nore Vision project was designed by environmental consultant Féidhlim Harty. The project focuses on protecting and restoring water quality, enhancing biodiversity, promoting flood mitigation, and improving ecosystem and climate resilience across the Nore River's catchment area, which spans Kilkenny, Tipperary, Laois, and Waterford.

Levelling and compacting the sides and base for planting of reeds and multispecies grasses. Soil with higher clay content introduced to seal the base.

The pilot project was implemented on the farm of Mark O' Brien in Kilmanagh, Co. Kilkenny. Under the guidance of LAWPRO catchment scientist Jim Croke and Teagasc ASSAP Advisor Deirdre Glynn, a series of small ponds and indigenous plants were introduced to the farm's wetland area. These elements function as natural filtration systems, effectively filtering greywater run-off from the farm into the river. The wetland buffer system works by slowing down the flow of agricultural run-off, storing it in ponds that provide a habitat for plants capable of naturally filtering the water.

O'Brien's farm served and continues to serve as a model for other farmers interested in adopting similar wetland buffer initiatives. The natural solutions proved to be more cost-effective than concrete storage alternatives, encouraging more farmers to consider implementing them on their own farms. The farm has been host to a number of farm visits already, which is testament to the high level of interest amongst farmers in adopting nature-based solutions on their farms.

Site discussion Mark O'Brien (farmer and owner), Feidhlim Harty (FH Wetlands), Jim Croke (LAWPRO), Mags Morrisey (Nore Vision) and Deirdre Glynn (Teagasc).

With the new LAWPRO funding, the Nore Vision project aims to expand its scale in 2025 by recruiting additional farms to enhance water quality and biodiversity. Three new farmers have already joined the project, and the Nore Vision program coordinator, Maura Brennan, hopes to recruit more participants, particularly from counties Laois and Tipperary.

The project will continue to be designed by Féidhlim Harty, with collaboration from LAWPRO catchment scientist Jim Croke and Teagasc ASSAP advisor Deirdre Glynn. The organisation has also recruited a new Farming for Water EIP community advisor, Conor Cleere, who will be responsible for engaging and empowering local farmers to participate in the scheme.

The Nore Vision project exemplifies how farmer-led initiatives can effectively address environmental challenges. By leveraging nature-based solutions, the project not only improves water quality but also enhances biodiversity and wider ecosystem resilience. The continued support from LAWPRO and Teagasc underscores the significance of community-driven efforts at a local level in achieving meaningful water quality and biodiversity improvement, which benefits us all.

Ballinahown: A Small Village Making a Big Splash in Nature-Based Water Solutions

Through creativity, collaboration, and a deep love for place, even the smallest communities can make a difference.

Public artwork on display in Ballinahown.

Located in South Westmeath, the village of Ballinahown (Baile na hAbhainn- "Town on the River") is a shining example of environmental innovation and community-driven sustainability. With a population of just 200 and a surrounding hinterland of about 3,000, this picturesque village lies near the River Boor, a tributary of the River Shannon, and just 10km south of Athlone.

Though small in size, Ballinahown is making a major impact when it comes to nature-based solutions and community-led water management. Surrounded by agricultural lowlands, raised bog peatlands, and the Esker Riada, the village's geographical setting lends itself naturally to environmental stewardship.

At the heart of Ballinahown's success is a dedicated community group Ballinahown Community Development who've become known as SuDS (Sustainable Drainage Systems) ambassadors. They were recently awarded a grant under LAWPRO's 2024 Community Water Development Fund, enabling them to implement actions from a comprehensive water management plan developed by environmental consultant Féidhlim Harty through the LEADER programme. These actions aim to enhance local water quality and build climate resilience, an approach that is increasingly critical across Ireland.

LAWPRO has supported Ballinahown in its evolution as a model village for integrated water and biodiversity management. Their LEADER-funded plan identifies 35 practical measures to improve water quality, all of which were strategically mapped to appropriate funding under the guidance of their chairperson, Helen Conneally, also a local artist.

The committee itself is a microcosm of village life. A mix of residents and stakeholders, they've built a tightly knit group that is continuously active in community improvement, from festive Christmas markets to drone video surveys and public art.

Their efforts haven't gone unnoticed. On May 19th, the village won the prestigious Cathaoirleach Award in Mullingar for their exceptional volunteer work, environmental sustainability, and community initiatives. And last summer, Ballinahown proudly represented Ireland in the Entente Florale 2024, an international competition celebrating excellence in sustainable village and town development across Europe.

LAWPRO staff members on a recent site visit to Ballinahown.

One of the many rainwater planters and butts harvesting system.

One of Ballinahown's standout achievements is its nature-based approach to water management. The village has constructed raingardens to reduce flooding, implemented rainwater harvesting systems using self-built planters, and even piloted a willow-based wastewater treatment experiment, all led by volunteers. Their educational greenhouse, developed in 2023 with LAWPRO support, offers hands-on learning opportunities for locals, particularly school children.

The Boor River, running through the village, holds both ecological and historical importance. While it is currently meeting environmental targets and marked "Green" in assessments, the Boor_20 waterbody is still designated for restoration under Ireland's River Basin Management Plan. Ballinahown's efforts directly contribute to improving this status through on-the-ground projects and citizen science. The community has also adopted the CROWDWATER app to monitor water levels, integrating local data with national monitoring efforts.

Education and outreach are integral to the group's ethos. They regularly host workshops, and their SuDS projects serve not only practical purposes but also as learning tools, promoting biodiversity and climate awareness.

Supported by Westmeath County Council and a strong network of supporters, Ballinahown continues to redefine what's possible for small villages. In a time when environmental challenges can feel overwhelming, Ballinahown offers a hopeful and actionable blueprint.

Enniscorthy Community Water Projects

The River Slaney is the lifeblood of Enniscorthy. This meandering waterway is a biodiversity highway running straight through the centre of this historic town. So much of Enniscorthy depends on this watercourse for drinking water, industry, agriculture, tourism and amenities.

Over the last year, two community groups - Enniscorthy Tidy Towns and Sustainable Enniscorthy have joined forces to help protect this precious resource. Thanks to grant funding from the Local Authority Water's Programme (LAWPRO) the groups have been able to implement a series of local actions to protect, enhance and conserve water in the Slaney Catchment.

Kayak clean up events

The groups have hosted successful kayak clean up events over the last number of years. The most recent event on 12/04/2025 saw forty local volunteers remove litter and dumped materials from the river. Over 60 bags of waste were removed during the event, including plastic bottles, aluminium cans, household waste, farm waste, glass and metal kegs! When some of this waste degrades it can produce harmful micropollutants. Removing these will help, but prevention is better than cure!

Volunteers who helped at the latest kayak clean up on 12/04/2025

Volunteers joined forces with other community groups that use the river; GoPaddle, Edermine Rowing Club and Slaney Search & Rescue to gather a huge haul of dumped materials from the river. The take home message – dispose of your waste correctly.

These kayak events help remove pollution, raise awareness of this fantastic amenity, and highlight the pressures facing our rivers. You can see a short video of the latest clean up here - https://youtu.be/IBHkzU_9trg?si=6OWik-vwMJH38RsV

Water Conservation Project

Like many catchments in Ireland, the Slaney is vulnerable to the effects of climate change. In recent years, the town has also suffered from drought conditions – with hosepipe and other water restriction measures commonplace during the summer months. On Christmas Day 2021, the town and surrounding areas suffered flash flooding from an unprecedented heavy rainfall event.

100 and 200 litre water butts the group distributed in August 2024

With thanks to grant funding from LAWPRO, both groups came together to purchase and distributed over forty water butts in the community for free. These water butts have multiple benefits of 'slowing the flow', reducing treated water usage and enabling residents to harvest rainwater to use around the home and garden.

These 100 and 200 L butts were distributed among local groups including Enniscorthy Community Allotments, St. John's daycare hospital, St. Senan's Primary School, Enniscorthy youth reach and private residents. This initiative has helped the community harvest, conserve and reuse approximately 5,000 litres of this precious commodity. You can follow progress of the project on the ChangeX platform - https://www.changex.org/freshwater-watch/enniscorthy-co-wexford

Local actions can make a difference

Community groups in Enniscorthy are proof that local actions can make a difference in our catchments. If you are involved in a community group and would like to know more about the LAWPRO catchment support fund check out this link here - https://lawaters.ie/catchment-support-fund/

Feel free to follow Enniscorthy Tidy Towns and Sustainable Enniscorthy on social media to keep up to speed with their progress!

The National Ploughing Championships proved to be a major public engagement and information event for the Farming for Water EIP.

Farming for Water: European Innovation Partnership Project Gains Nationwide Momentum

In 2024, the Local Authority Waters Programme (LAWPRO) continued to drive the expansion of the €60 million Farming for Water European Innovation Partnership (EIP), a transformative initiative helping Irish farmers safeguard and enhance water quality.

Of the total funding, €50 million, jointly provided by the Department of Agriculture, Food and the Marine (DAFM) and the European Commission (EC), is ring-fenced for direct farmer payments to support targeted, voluntary measures that go beyond regulatory requirements. A further €10 million in administrative support is provided by the Department of Housing, Local Government and Heritage (DHLGH), ensuring smooth and effective project delivery.

In close collaboration with Teagasc/ASSAP and Dairy Industry Ireland, this ambitious project has gained strong momentum and community backing. As we move through 2025, the energy, scale, ambition and shared purpose behind Farming for Water project has only deepened.

Aims and Impact

Running until 2027, the initiative supports practical, nature-based measures that reduce nutrient, sediment, and pesticide loss from farmland. These actions not only enhance water quality but also boost biodiversity, improve flood resilience, and contribute to climate action. The project aims to reach up to 15,000 farmers nationwide, focusing efforts in priority catchments where water quality is under pressure.

At its heart, Farming for Water promotes local stewardship through catchment-based planning, applied science, and collaborative action. It embeds sustainable practices that will benefit communities and ecosystems for generations to come.

"Working together with farmers and the community to deliver lasting improvements in water quality - for nature, water, life, and society."

A Farmer-Centric, Collaborative, Science-Led Approach

Led by Mairead Whitty from its base in Tipperary Town, the project's growing team of 20+ staff is supported by the newly launched Water EIP Research Hub. This hub connects researchers from UCC, UCD, Dundalk IT, Atlantic TU, and the UK's James Hutton Institute, ensuring decisions are rooted in the latest science.

"At every stage, this project is designed around the farmer - practical, supportive, and grounded in science. We're not here to impose; we're here to work with farmers, on their land, in ways that make sense to them and the environment." – Mairead Whitty, Project Lead, Farming for Water EIP

A segment on Ear to the Ground on RTÉ One was a major boost to the project with Farming for Water EIP's Mairead Shore pictured speaking to presenter Darragh McCullough.

With 43 targeted measures available, farmers are equipped to address specific pollution pathways:

- Source: e.g. reducing nitrogen surplus
- Pathway: e.g. buffer strips or bunded drains
- Receptor: e.g. fencing watercourses

These actions are carefully assessed using EPA tools like the Farm and Landscape measures for Agriculture (FLAG) map (previously the Targeting Agricultural Measures Map) and Pollution Impact Potential (PIP) maps, aligning with the guiding principle:

"The right measure, in the right place, at the right time."

Key Achievements in the Project up to Q1 2025

- 2,000 Rainwater Management Plans completed
- 10,000+ on-farm measures approved in Areas for Action
- To date the average value of applications is more than €10,000

Farmers are embracing a wide suite of interventions, including:

- Catch crops and multi-species swards
- Vegetated drains and riparian planting
- Farmyard sediment tanks
- Willow filter beds
- Solar-powered fencing and clean water tanks
- Nutrient management planning and runoff mitigation tools

Strategic Targeting: Areas for Action

To maximise impact, the Water EIP team prioritises participation based on environmental risk and need. As detailed on the Farming for Water website (www.farmingforwater.ie), priority is given to farms located in Areas for Action (AFAs) and focus is given to those waterbodies where water quality targets are not being met and agriculture has been identified as a pressure.

Rainwater Management Planning: First Step on Every Farm

Each participating farm begins with a tailored Rainwater Management Plan (RWMP), developed through a mix of farmer insight and scientific tools. EPA's PIP maps, which model nutrient loading and flow pathways, help pinpoint high-risk areas and guide intervention placement. ASSAP advisors work closely with farmers to align measures with how water naturally moves across yards and fields into receiving waters such as rivers or even groundwater.

Growth in 2025: Local Initiatives and New Partnerships

This year brings an exciting expansion of the project, with some new partnerships and local actions underway:

- **Invasive Species Management:** Giant Hogweed eradication in the Upper Mulkear (Tipperary) in collaboration with Tipperary County Council, Arrabawn Tipperary Co-operative Society, and local farmers.
- **Training & Representation:** National Federation of Group Water Schemes to assist member farmers
- **Natural Solutions:** Joint OPW and ResiRiver Interreg IV projects on water retention
- **Industry Engagement / Non-ASSAP affiliated co-ops:** New recruitment / Engagement with Kepak, Dawn Meats, ABP, Lee Strand, Strathroy Dairies, and Centenary Co-op.
- **Community Outreach:** Five Community Animators hired through local catchment groups. These include Corrib Beo, Nore Rivers Trust, IRD Duhallow, Inishowen Rivers Trust and the River Blackwater Catchment Trust (Ulster).
- Youth Involvement: Four University of Limerick students have joined the project team and are gaining hands-on project experience.

At a Farming for Water EIP advisor training event were: Ted Massey (Department of Agriculture, Food and the Marine), Joan Martin (Farming for Water EIP), Anthony Coleman (Director LAWPRO), Mairead Whitty (Farming for Water EIP), Eimear O'Keeffe (Department Housing, Local Government and the Environment) and Noel Meehan (Teagasc).

Turning the Tide: Wastewater Improvements and Bathing Water Quality

A recent report from the Environmental Protection Agency, *Urban Wastewater Treatment in 2023*, outlines the current state of Ireland's wastewater infrastructure and the urgent need for targeted improvements.

It was reported that that more than a billion litres of wastewater (sewage) is collected in Ireland's public sewers every day and treated at over 1,000 treatment plants. The treated wastewater is then discharged into rivers, estuaries, lakes and coastal waters. Uisce Éireann is the national water utility responsible for providing this important service. The EPA is the environmental regulator of Uisce Éireann.

Untreated and poorly treated wastewater can be contaminated with bacteria and viruses that make people sick. This is particularly important where wastewater infrastructure (sewage treatment plants, sewer overflows, pumping stations etc) is located close to bathing waters.

Although deficient wastewater works must be brought up to the standards set to prevent pollution and protect the environment, this is likely to take at least two decades and require substantial investment. It is therefore vital to prioritise improvements and target resources where they are needed most and will bring the greatest benefits.

So how has this work helped to improve our bathing waters? Table 1 compares bathing waters in the last ten years.

Table 1 – Comparing Key Bathing Water Metrics (2014 – 2024)

	2014 (136 beaches)	2024 (151 beaches)
Excellent + Good	86.8% (118)	93% (141)
Sufficient	94.1% (128)	96% (147)
Poor	5.2% (7)	1.3% (2)
Incidents due to sewage	27 (56%)	17 (36%)

Poor Bathing Waters 2014 and their 2024 classification		
Beach	**Reason**	**2024 quality**
Ardmore (Waterford)	Sewerage infrastructure	Excellent
Ballyloughane (Galway City)	Sewerage infrastructure	Excellent
Clifden (Galway)	Sewerage infrastructure	De-classified (Good)
Duncannon (Wexford)	Sewerage infrastructure	Good
Lilliput Lough Ennel (Westmeath)	Septic tanks/agriculture	Good
Rush South (Fingal)	Sewerage infrastructure	Good
Youghal Front Strand (Cork)	Sewerage infrastructure	Excellent

Poor Bathing Waters 2024	
Beach	**Reason**
Sandymount Strand (Dublin)	Wastewater infrastructure/other
Lady's Bay (Donegal)	Waste Water infrastructure

As can be seen, pollution incidents due to wastewater infrastructure have reduced by 20% and of the seven Poor quality bathing waters in 2014, three are now Excellent, and three Good. Clifden in County Galway was de-classified due to persistent Poor quality but is still monitored as an "Other Monitored Water" and has achieved a rating of Good.

So, what works have been carried out to achieve this improvement? Table 2 shows the work done by Uisce Eireann to remediate known problems at these, and other, bathing waters.

Table 2 – Improvements to Sewerage Infrastructure Affecting Bathing Waters

Bathing Water	Works Completed/Underway
Ardmore	New treatment plant completed in 2015. Prior to this there had been no treatment.
Ballyloughane	Galway City removed from the priority areas following improvements to the sewer network.
Duncannon	New treatment plant completed in 2022. Prior to this there had been no treatment.
Rush South	Connecting Rush agglomeration to Portrane WWTP was the proposed measure applicable to Uisce Éireann in the Bathing Water Management Plan. This work was completed in 2018.
Loughshinny	The annual water quality rating was classified as 'Poor' 2015 to 2017. Improvement works were completed in 2021 to decommission the septic tank, and a new pump station now diverts flows to Balbriggan-Skerries WWTP for treatment.
Trá na mBan an Spideál	The annual water quality rating was classified as 'Poor' in 2022 and 2023, but the new treatment plant was completed for Spidal in Q3 2023 and discharges of raw sewage have ceased.
Youghal Front Strand	New treatment plant completed in 2018. Prior to this there had been no treatment.

Works are also ongoing at Lady's Bay, Buncrana commissioning a major upgrade of the collecting system and pumping stations, to provide more storage for waste water during heavy rainfall. These works are partially complete for the 2025 bathing season.

Other areas where significant efforts have been taken to address issues with Poor bathing waters include Quay Street pump station

in Balbriggan, which was completed in 2024, which will now help to protect the bathing waters at Balbriggan Front Strand. The pump station is part of the sewer system that collects wastewater and conveys it to the treatment plant. The bathing water classification has gone from poor in 2023 to 'changes' in 2024.

Despite the recent progress, however, raw sewage from the equivalent of 20,000 people in 15 towns and villages still discharges into seas and rivers every day because these areas do not have treatment plants. Also, climate change and increasing heavy rainfall events are placing further pressures on inadequate infrastructure.

In the past year Uisce Éireann extended its timeline to deliver treatment for eight towns and villages by between two and five years. Reasons provided for the delays include statutory processes taking longer than expected and legal challenges.

Find Out More:

https://www.epa.ie/publications/monitoring--assessment/waste-water/Urban-Wastewater-Treatment-in-2023-report.pdf

www.beaches.ie

Kilrush Waste Water Treatment Plant.

Beaches.ie – Your Guide to Bathing Water Quality

As the 2025 bathing season concludes, Beaches.ie continues to serve as a vital resource for those using, monitoring and managing Ireland's bathing waters. Developed by the EPA, the site provides access to up-to-date and historical data for over 200 designated bathing areas nationwide.

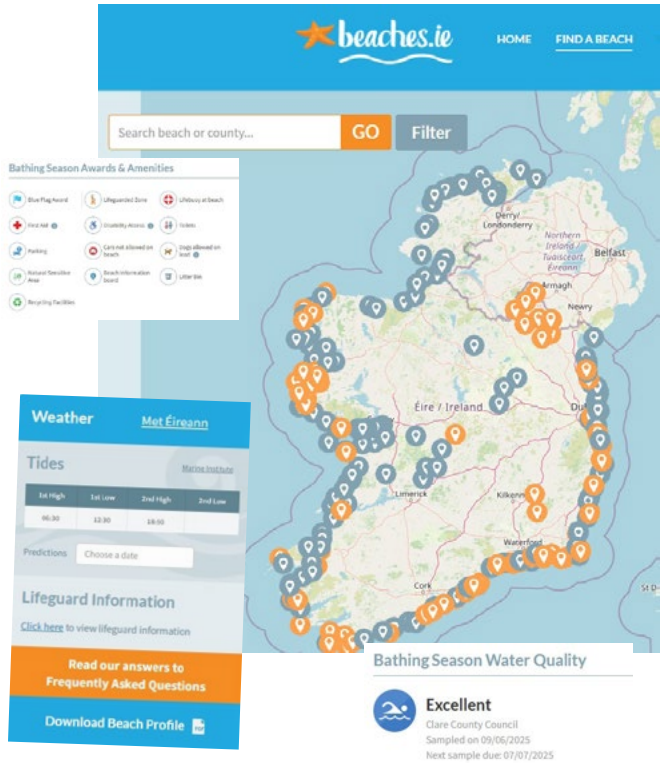
Throughout the summer, the site provided real-time water quality updates for over 200 designated bathing areas. But its value goes far beyond the season. Users can download a comprehensive profile for each bathing water site, detailing water quality, ecological significance, environmental pressures, monitoring data, risk assessments, and management measures.

- By August 2025, Beaches.ie recorded over 132,000 visits, reflecting increased engagement with coastal water quality data across sectors.
- Did you know? Beaches.ie allows users to download historical water quality records, view sampling schedules, and access contextual information such as catchment pressures and seasonal trends—supporting evidence-based decision-making and reporting.

I always use beaches.ie before Water Safety Swim week in Kilmore Quay to check the water quality before I encourage groups of children into the water." Emer, Wexford

Even outside the bathing season, Beaches.ie remains a valuable tool for professionals and communities alike. Bookmark it for year-round access to Ireland's coastal water data.

Visit: www.beaches.ie



Explore Your Shore! – Ireland's Marine Citizen Science Movement

By National Biodiversity Data Centre

Ireland's coastline is not only a place of natural beauty but is also rich in biodiversity. However, human activities are putting pressure on our coastal ecosystems. Issues such as global warming and declining water quality, both driven by human activities, are major public concerns. In 2019, the EPA funded a Citizen Science project through the National Biodiversity Data Centre to investigate what freshwater and marine species can tell us about the effects of climate change and water quality on Ireland's aquatic environment.

What is Explore Your Shore!?

Explore Your Shore! is building our knowledge of marine species around the Irish coast, and what they tell us about climate change and water quality in our coastal ecosystems. It is a national citizen science project aimed at documenting Ireland's coastal and intertidal biodiversity. By engaging the public in recording marine species, the project seeks to establish a comprehensive baseline dataset for intertidal plant and animal species, utilise intertidal species as indicators of climate change and water quality, and raise public awareness about the impacts of climate change and water quality on Ireland's marine biodiversity. Explore Your Shore! is managed by the National Biodiversity Data Centre and, working in partnership with other Irish marine biodiversity citizen science projects, serves as a platform for marine biodiversity citizen science in Ireland.

A sample of species recorded during a Big Beach Biodiversity Survey

Participating in Explore Your Shore! Surveys

Explore Your Shore! offers a variety of surveys tailored to different interests, and levels of expertise:

- Seashore Spotter: Ideal for casual observers, this survey encourages the public to submit records of any marine species encountered along the coast, even if they cannot identify them.
- The Big Beach Biodiversity Survey: Participants record marine species found washed ashore on beaches. It is a proxy-survey of what lies beneath the adjacent sea surface, contributing to data on species distribution and abundance.
- The Great Rocky Shore BioBlitz: Aimed at more enthusiastic marine species recorders, this survey challenges participants to record as many marine species as possible in a specific location.
- Adopt-a-Rockpool!: This initiative invites individuals or groups to regularly monitor a chosen rockpool, fostering a deeper connection with local marine biodiversity and monitoring changes in marine species over time.

These surveys are designed to be accessible to non-experts, requiring only access to a camera or smartphone, and uploading data through a user-friendly web form. Detailed instructions and resources are available on the Explore Your Shore! website to guide participants through the process of participating in each survey. We also have a free online course where you can learn about marine biodiversity citizen science and how to find, identify and record marine species.

Collaborations with Partner Marine Surveys

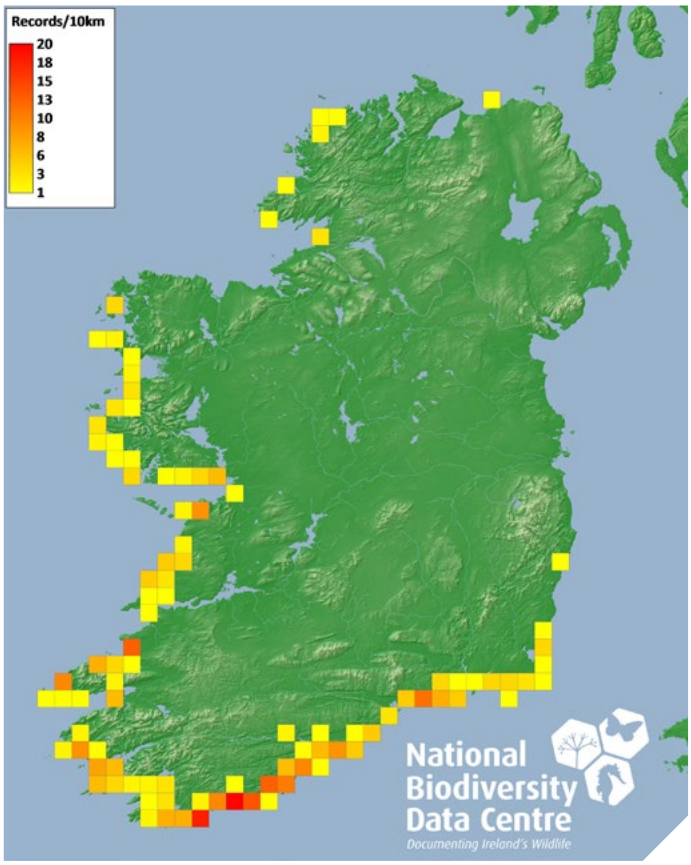
Explore Your Shore! acts as a platform for marine biodiversity citizen science in Ireland and collaborates with several partner organisations to that end. These include:

- Seasearch Ireland: Engaging divers in recording marine habitats and species.
- Irish Whale and Dolphin Group: Collecting sightings and strandings of cetaceans around the Irish coast.
- Purse Search Ireland: Encouraging the public to record shark, skate, and ray egg cases found on beaches.
- Irish Basking Shark Project: Collecting data on basking shark sightings to aid in their conservation.
- The Big Jellyfish Hunt: Gathering records of jellyfish and jellyfish-like species in Irish waters.
- These projects enhance the scope of marine biodiversity data collected in Ireland, contributing to a more comprehensive understanding of Ireland's marine ecosystems.

Achievements and Impact

Since its inception, Explore Your Shore! has made significant strides in marine biodiversity data collection. Since 2019, over 25,789 records of 783 marine species have been submitted by more than 1,600 participants at 2,289 sites around the Irish coast. The National Biodiversity Data Centre has witnessed an almost 500% increase in marine species records submitted via its Citizen Science Portal, highlighting growing public interest and involvement in marine biodiversity recording.

We periodically review species distributions evidenced by Explore Your Shore! data and compare them to any available baselines. Through this process we identify species with restricted distributions around the Irish coast, that may be impacted by climate change. We also look for species with known sensitivity to nutrient enrichment that may be usefully monitored as indicators of water quality. Explore Your Shore! data also helps record new marine invasive species and map the distributions of existing marine invasive species in Ireland.



Distribution of records of Portuguese Man O War around the Irish coast

Through workshops, online courses, and identification resources, Explore Your Shore! has trained and educated thousands of people on marine species identification and the importance of marine biodiversity recording. These efforts not only enrich our understanding of coastal marine biodiversity in Ireland but are building a community of informed and engaged marine biodiversity citizen scientists.

How to Get Involved

Becoming a citizen scientist with Explore Your Shore! is quite straightforward:

1. Visit the Website: Explore the various surveys and choose one that fits in with your interests.
2. Access Resources: Utilise the identification guides, survey forms, and online courses available to help build your knowledge of and interest in marine species identification and recording.
3. Conduct Surveys: Head to your local coastline, observe and record marine species, taking a photograph of each species recorded, and follow the provided guidance on how to ensure accurate data collection.
4. Submit Data: Upload your findings through the National Biodiversity Data Centre's Citizen Science Portal.

By participating in Explore Your Shore! you can play a vital role in monitoring and protecting Ireland's marine biodiversity.

Explore Your Shore! shore training at Ring, Co. Cork with local Clean Coasts volunteers

Find Out More:

Please visit exploreyourshore.ie

Explore Your Shore!

National Biodiversity Data Centre
Documenting Ireland's Wildlife

Tomhaggard Clean Coasts Group: People, Projects & Purpose on the South Wexford Coast!

By Anne Marie Kirwan, Tomhaggard Clean Coasts Group

Tomhaggard Clean Coasts Group began in 2021 with a group of close knit family and friends. Since then, it's grown into a vibrant community effort of over 80 members of all ages and multiple nationalities tackling a 27km stretch of coastline from Nethertown to Cullenstown – just over 10% of Wexford's coast. Clean ups take place every week from April to September, and monthly in winter.

We don't just clean! We teach. We host talks, walks, and tours that help people understand the value of our coast. On average, in addition to clean ups, we host educational events. On May 24th 2025, we hosted our first ever mini festival, 'Connections', during Biodiversity Week! Events like these bring everyone into the conversation. Proceeds from the festival were donated to the local branch of meals on wheels.

Returned from the Sea Project

In 2024, the group removed 10 tonnes of waste, 2 tonnes of which (including 178 lobsterpots) were diverted from landfill through our circular economy initiative – the 'Returned from the Sea Project'.

In collaboration with Wexford County Council a unit was established at the pier in Kimore Quay where people can help themselves to items found during clean-ups. In 2024, the unit was restocked 10 times. The final tally was 16 lobster pots, 18 lobsterpot floors, 23 lobsterpot doors, 6 bouys, 67 spinners, 26 door hooks, 3 buffs and 1.4 km of rope!

Photo by Gayle Daly – 'Returned From The Sea Unit' Launch in September 2024

In addition, any lobsterpots which are unsuitable for reuse are either stripped for metal recycling or upcycling. For example, in February 2025, 20 lobster pot frames were galvanised and repurposed as mini poly tunnels in conjunction with Edible Wexford for a growing workshop.

Edible Wexford - Mini Poly Tunnels

Local Beach Cleanups

In 2024, the group tackled a major "blackspot" identified by Coastwatch at the Coal Yard near Cullenstown and removed 3 tonnes of waste. To date in 2025, the group has removed over 11 tonnes of waste 6.5 tonnes of which was removed from Nethertown beach in collaboration with local people there. As we work along the coast, community groups from the various areas join us for cleanups.

Without quad bikes owned by members, these cleanups wouldn't be possible. The National Parks and Wildlife Service (NPWS) grant us a licence each year to use quads for our cleanups. We're also supported by Wexford County Council, who collect the waste. An Taisce Clean Coasts provides insurance for the group.

Sea Turtle Project

Last autumn we completed a Sea Turtle Project in three local schools, reaching over 600 children, using art, stories, and competitions to inspire children to protect marine life. This was made possible by adding a Biodiversity Officer, Thérèse Maddock from 'Seashore Explore' to our committee. Her knowledge and dedication has helped us to bring the message of how plastic in our oceans and waterways affects marine biodiversity and human health.

Photo by Anne Marie Kirwan of Thérèse Maddock and School Children engaged with the Turtle Project

For us, it's not just about the rubbish – it's about the people. The friendships, the learning, the shared moments on the beach. It is the social interaction and the knowing that we are making a difference that makes this work meaningful and enjoyable.

Our community has reaped the rewards: cleaner beaches, stronger connections, increased awareness, awards and a surge of pride. In fact, we are representing Wexford at Pride of Place this year. Everyone is welcome. There's no pressure – come when you can, in whatever way you can help.

We believe our approach can inspire others: combine regular cleanups with creativity, partnerships, and education – and always put community at the heart. To see more of what we're doing or get involved, follow Tomhaggard Clean Coasts on Facebook or Instagram.

Trá na mBan: A Beach on the Road to Recovery

Tucked away in the heart of Connemara, Co. Galway, Trá na mBan in An Spidéal is a hidden gem. Located in the Gaeltacht region just 17 km west of Galway City, this scenic beach lies on the shores of Galway Bay, facing the open Atlantic.

Trá na mBan, an Spidéal, Co. Galway

One of two designated bathing areas in An Spidéal (the other being Céibh an Spidéil near the pier), Trá na mBan is popular with both locals and visitors. Its landscape — a mix of rocky foreshore and sandy stretches revealed at low tide — supports a rich variety of wildlife, from seals and otters offshore to seabirds and shellfish. It's a beautiful spot for swimming, bathing, or enjoying watersports against a dramatic backdrop.

However, Trá na mBan has faced challenges in recent years. Since the introduction of the bathing water classification system in 2014, it had mostly been rated as 'Sufficient' — the lowest acceptable quality — with a brief improvement to 'Good' in 2018. In 2022 and 2023, water quality dropped to 'Poor', prompting further investigations and management measures.

While earlier studies examined potential impacts from septic tanks and agriculture, the primary issue was ultimately traced to An Spidéal's ageing sewerage infrastructure. Fortunately, action was already underway. On 24 November 2023, Uisce Éireann officially opened a new wastewater treatment plant, along with new sewers and a pumping station.

Galway County Council also carried out septic tank inspections under the National Inspection Programme, with any failed systems remediated or upgraded.

What did the Project involve?

As part of this €4.9 million scheme, Uisce Éireann:

- Constructed a new wastewater treatment plant (WWTP) to serve a population equivalent of 1,000
- Installed a below-ground pumping station with stormwater storage to deal with more frequent and intense rainfall.
- Laid new sewer pipelines to convey untreated wastewater to the WWTP and treated effluent to the outfall
- Built a new outfall pipeline to discharge treated water to the existing marine outfall

Is it Making a Difference?

Yes — and quickly. In 2024, Galway County Council took eight samples from Trá na mBan, and all achieved an 'Excellent' rating. The beach has now been redesignated under the "Changes" category, lifting previous bathing restrictions. A new full classification is underway based on 16 samples. If the trend continues, Trá na mBan could soon be officially rated as 'Excellent' — a fitting reward for the collaborative efforts of Galway County Council, Uisce Éireann, and the local community.

This much-needed investment not only protects public health and the environment but also ends the discharge of over 600 wheelie bins of raw sewage into Galway Bay every day.

Here's to many more safe, clean swims at Trá na mBan!

Find Out More:

Beaches.ie https://www.beaches.ie/find-a-beach/#/beach/IEWEBWC010_0000_0400

Have a story to tell?

If you have a story for a future issue, please get in touch via www.catchments.ie/contact/ or scan the QR code.

Kick sampling for insects, Sallys Gap, Wicklow.

A Day in the Life of an Ecologist

Aine Gavin, Scientific Officer, EPA

Picture this: it's the height of summer and you're traversing the country. You wake up in a B&B just down the road from one of Ireland's most beautiful national parks, ready for a day of meaningful work as an EPA ecologist. Basking in the outdoors and protecting our environment – what could be better?

It's an easy picture to paint when asked "What do you do?" and while it *can* be true, it's really only a fraction of the job. Ecology, especially cyclical monitoring, is deeply seasonal. There are a lot of steps that must fall into place before I get to that idyllic image. So, here's a more honest account of a day in the life of an ecologist:

But First, Why?

The National Water Monitoring Programme is the cornerstone of Ireland's commitment to the EU Water Framework Directive (WFD). This directive mandates that water bodies in good condition remain so, while those not in good condition undergo targeted efforts for improvement. EPA ecologists visit and assess more than 13,200 km of river channel (or over 2,800 individual river stations) and approximately 220 lakes (or 80% of lake surface area) throughout the country, at least once every three years. Each year, from early June through summer and early autumn, our team embarks on an intensive schedule of site visits. We collect samples, analyse water quality, and document the incredible life inhabiting our waters. It's a monumental effort, but it provides the crucial data needed to protect and enhance Ireland's waterways.

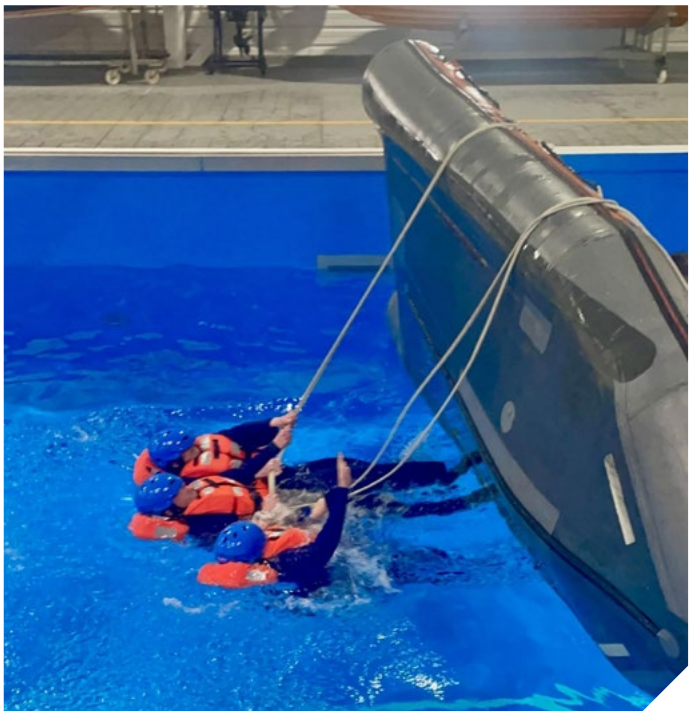
Winter Preparation: Laying the Groundwork

While the busy season starts in summer, the groundwork begins in winter. The off-season is spent collating data from the previous season's fieldwork, writing reports and contributing to larger publications – such as the Water Quality in Ireland which will be published in 2025. We also focus on refining our monitoring programme, exploring advancements like remote sensing and automated data collection to improve our ability to detect and address environmental concerns efficiently.

Throwing a rake to survey plant life, Lough Bray, Wicklow

Spring: Getting Ready for the Field

By spring, my calendar is full of reminders: life jackets, engines, boats, trailers – everything needs servicing. Any training needed is arranged for the team. Last year our Personal Survival Techniques qualifications expired so the team headed down to Cork to the National Maritime College of Ireland to refresh our safety skills for working on boats. My favourite part is the practical session in the training pool where you practice drills for self-rescue in storms, "man overboard" scenarios and even flipping an upturned boat!



Survival training, National Maritime College

Moss ID training, Lough Bray, Wicklow

This is also when we come together as a team to refresh and hone our identification skills. As part of a field survey, we identify insects, plants, mosses and algae. When I started my job at the EPA two years ago, I was assured that species identification would get easier "once I got my eye in." As someone who loves rules and certainties, I was drawn to science for its structured approach. Enter the world of taxonomy where distinguishing one species from another often boils down to characteristics that you may or may not be able to see in the field – a leaf shape that is sometimes blunt but might actually be round, or a tail size that should be long, if it hasn't been damaged or degraded during the sampling process. A regular exclaim on these courses is "ecologists have great imaginations"! When we are unsure of a species identification in the field, we bring back specimens to the lab for further examination.

Summer: Fieldwork Begins

Come June, each ecologist is assigned a list of river stations and lakes to visit and assess, typically completed over a 10 to 12-week period. With so much ground to cover, it's tempting to plan each site visit down to the hour. However, nature rarely sticks to a schedule. It's not unusual to arrive at a site only to find that previous access instructions are no longer relevant – a fallen tree blocking the usual path, dense plant growth obstructing entry, or an uninviting bull standing guard beside the river. It's a reminder that we can't plan for everything. For a job with a lot of lone working, it's also highly social. A quick site visit can turn into a conversation with a Tidy Towns volunteer with a wealth of local knowledge, or a moment with a curious group of kids, eager to see what I've found in the water. For me, these interactions are one of the most important aspects of the job – especially when sparking curiosity in children who might never have considered that such a career exists, or who have yet to discover the wealth of life hidden in their local river.

Autumn: Back Indoors

As the season wraps up, the cycle begins again - retreating to the office to process the vast array of data gathered. Although an average day may not always be spent on a riverbank, if you ask most ecologists, they will say this is their favourite aspect of the job. Robin Wall Kimmerer captures this sentiment beautifully in Gathering Moss:

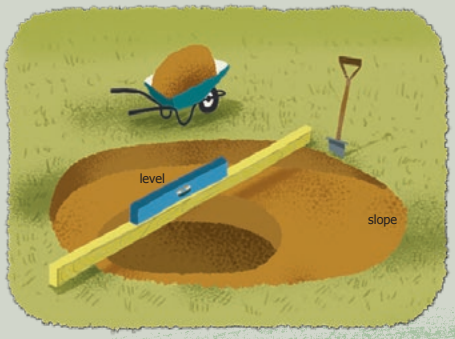
"The average person knows the name of less than a dozen plants, and this includes such categories as 'Christmas Tree.' Losing their names is a step in losing respect. Knowing their names is the first step in regaining our connection."

Witnessing firsthand the wealth of life in what might initially seem like the most basic of environments, ecologists form a deep connection to place by returning to the same sites year after year. It's not just about ticking off boxes on a checklist; it's about understanding the intricate web of life that exists in our waters. This knowledge fosters a deeper appreciation and a lasting sense of stewardship for the natural world – something that everyone, regardless of profession, can learn from.

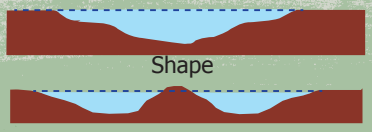
HOW TO CREATE & MANAGE A POND FOR WILDLIFE!

1 Find an area in your garden, school, or green space to locate your pond. Ideally, this area will get plenty of sunlight and not be over shaded by trees or walls.

2 1. Digging a trial pit is a great way to see how your site will retain water. It is always advised to dig approximately 40cm lower than the planned depth of your pond.
2. It's always wise to find out if there are pipes or cables underneath where you plan to dig. You can find this out from your utilities providers.



3 Design your pond. An ideal wildlife pond will be dish shaped, with shallow margins and a smaller deeper area. Most of the pond should be between 10cm-30cm deep, with the deepest part between 50-80cm.



Bulrush

Yellow flag iris

Curled Pond Weed

Common water-starwort

Common water-crowfo

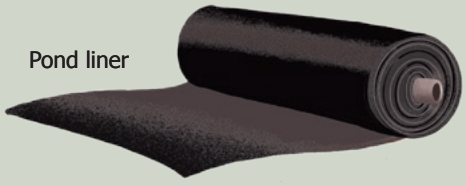
6 Choose an area of your pond and either excavate a very shallow shelf or fill it with stone to make it very shallow. This will make a lovely area for birds to wash and provide a safe ramp for small mammals like hedgehogs to get in and out of the pond.

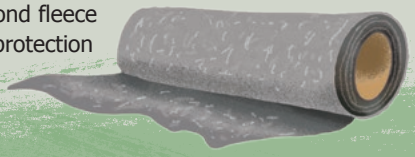
7 Fill you pond with water, ideally use rain or well water.

8 Create some wildlife friendly areas around the edges of your pond, this can include longer grass, log and stone piles, and some branches that birds and dragonflies will use to perch on.

5 To protect your liner, place pond fleece or another type of underlay in your excavated area before installing the liner on top. This will stop tree roots and any sharp rocks from puncturing your liner. If you're planning to place heavy ornamental rocks into your pond, consider using more pond fleece on top of your pond liner to make a "pond liner sandwich". This will protect your liner from being punctured from above.

4 Get digging! Remember that it is important to remove the topsoil. You will know the topsoil has been removed when you see the soil changing colour.





9 Don't be worried about your pond looking a little sparse at the start! Sit back and watch as wildlife and native plants make their way to the pond naturally.

10 Congratulations, enjoy your new pond as it matures and diversifies!

Illustration: Brian Fitzgerald

An Taisce 75 YEARS 1948-2023
The National Trust for Ireland

Co-funded by the European Union

An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta
Department of Housing, Local Government and Heritage

Local Authority Waters Programme

How We Assess Water Quality

Why do we classify the quality of our waters?

Water is needed to sustain life and is essential to our existence. Protecting and maintaining our water quality is critical if we are to have a healthy society and environment.

To check on the health of our aquatic environment we monitor, assess and classify the quality of our waters. The EPA classifies the water quality of our surface waters (rivers, lakes, estuaries and coasts) and groundwaters every three years. We classify our waters into five quality or status classes under the approach set out in the EU Water Framework Directive (WFD):

1. High | **2.** Good | **3.** Moderate | **4.** Poor | **5.** Bad

Having a single European framework such as the WFD to assess water quality allows us to compare our results across Europe.

Our water quality is reported to the EU and also in the EPA's three-yearly water quality reports as well as Ireland's national River Basin Management Plan. This helps us to track progress towards meeting the objectives set out in the plan and the WFD.

What are the Environmental Objectives?

We assess water quality at the **water body** scale and each water body is assigned a status. Typically, rivers and estuaries are divided into several smaller water bodies, whereas lakes and most coastal waters are represented by a single water body. Water bodies are categorised as natural, heavily modified, or artificial.

The objective for natural surface waters is to achieve **good ecological** and **good chemical status** and the objective for groundwaters is to achieve **good quantitative** (water quantity) and **good chemical status** at a minimum. A smaller number of our surface waters have to achieve a higher standard of **high ecological status** as their objective.

Artificial water bodies are those that have been created by humans (e.g. canals[1]). Heavily modified water bodies are those that are substantially and permanently changed in character for important specific purposes (e.g. drinking water reservoirs). The objective for these water bodies is **good ecological potential.** This is the best status they can achieve whilst also taking their modified nature into account.



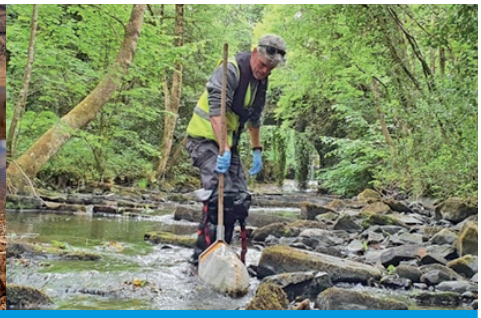


Photo credits left to right: Robert Wilkes; Neasa McDonnell; Hugh Feeley.

[1]Canals are assessed by Waterways Ireland (www.waterwaysireland.org).

What information is collected for classification?

The information used in the classification of the status of our water bodies is collected in the national WFD monitoring programme. Information on a range of different elements is collected:

- **Biology** (plants and animals living in and around water bodies). Factsheets explaining how the biology of our surface waters is assessed can be found at www.epa.ie.
- **Water quality** (concentrations of nutrients such as nitrogen and phosphorus and harmful chemicals such as pesticides).
- **Water quantity** (flows and levels of surface waters and groundwaters).
- **Hydromorphology** (the physical habitat conditions of water bodies).

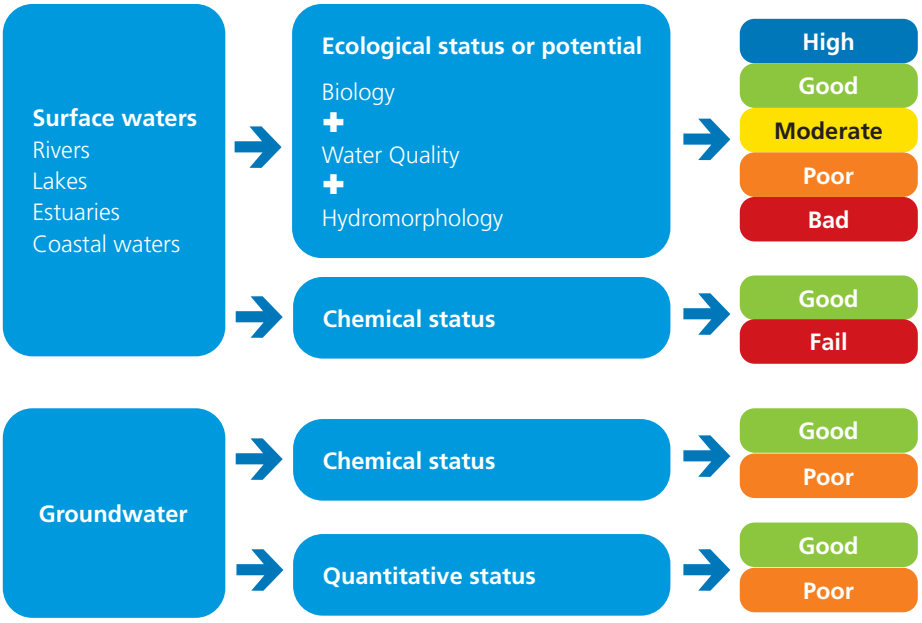
There are thousands of WFD water bodies so it is not possible to monitor all of them. To address this, we classify unmonitored water bodies with the status of monitored water bodies that have similar characteristics and pressures.

How is the information used in classification?

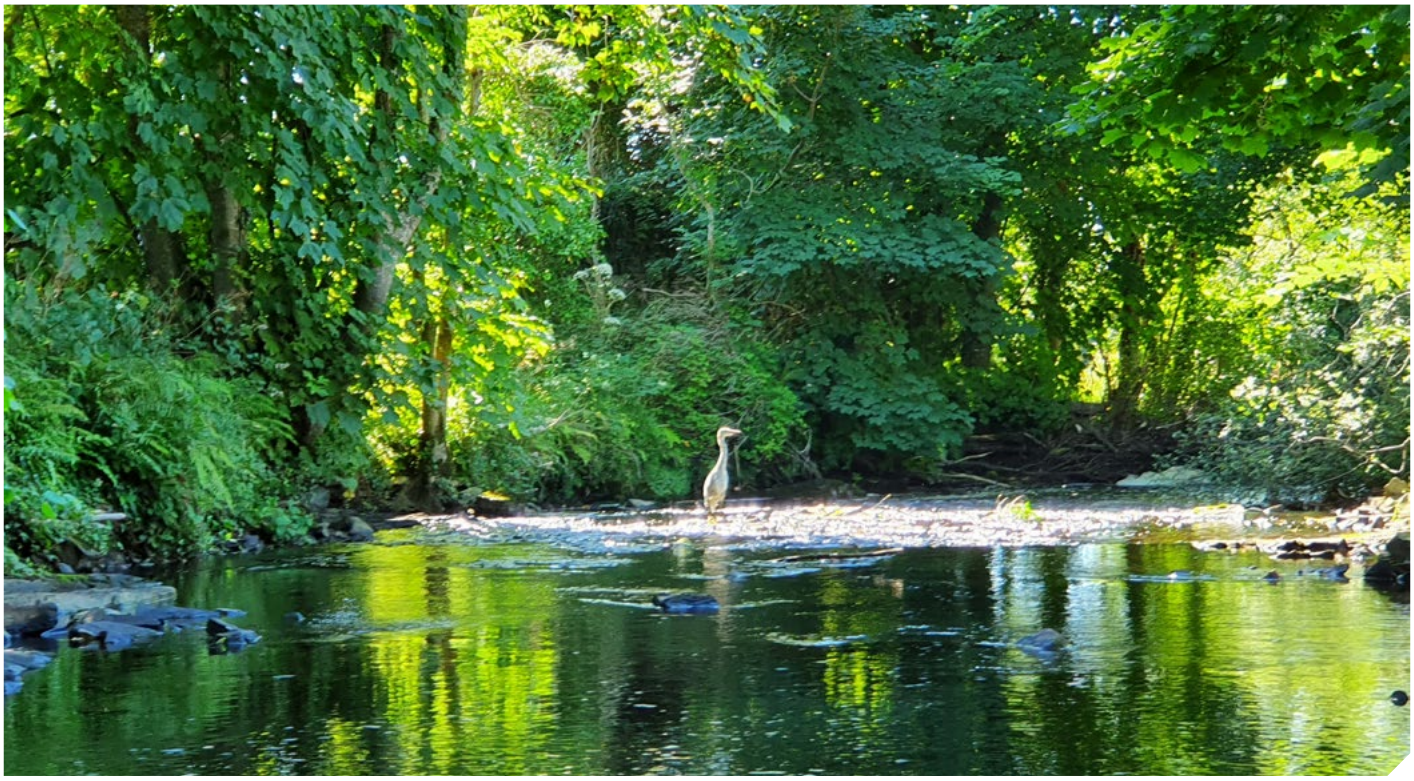
Surface waters are classified by their **ecological status** (biology, water quality and hydromorphology combined) and **chemical status** (level of harmful chemicals in the water).

Groundwaters are classified according to their **chemical status** and **quantitative status** (the amount of water present).

The way this information is combined to provide an overall status of surface waters and groundwaters is illustrated here. The element with the lowest status in each step of the process determines the overall classification. This is called the 'one out, all out' principle.



For more detailed information on the role of the EPA in monitoring the quality of our surface and groundwaters go to **https://www.epa.ie/our-services/monitoring--assessment/freshwater--marine/**
For the latest information on water quality go to **www.catchments.ie**.



Ballintra River, Co. Donegal (Photo: Orla O'Connell)

New Legislation for Water Abstractions: What does it Mean for our Waterbodies?

Patrick Barrett, Scientific Officer, EPA

Water abstraction is the removal or diversion of water from a natural resource such as a river, lake, spring or groundwater. Regulating abstractions will help protect and manage our waterbodies now and in the future.

Caption Vartry Reservoir, Co. Wicklow (photo: Conor Quinlan)

Are Water Abstractions now Regulated by the EPA?

Yes, abstractions are now regulated by the EPA. The Water Environment (Abstractions and Associated Impoundments) Act 2022 and its associated Regulations came into operation on 28th August 2024, thereby commencing a registration, licensing and control regime for water abstractions and associated impoundments (an abstraction that is dependent on an impoundment).

All abstractions are subject to general rules and any abstraction greater than 25m3/day should be registered with the EPA. There are currently approximately 2,000 abstractions, many with multiple abstraction points, registered with the EPA.

The Act applies a graduated approach to the regulation of abstractions:

- Abstractions of 2,000m³/day or more require a licence.
- Abstraction of between 25m³/day and 1,999m³/day will be assessed by the EPA to determine if it is a significant abstraction.

If an abstraction is deemed to be significant, an abstraction licence will be required. If it is not deemed to be significant, the abstraction only needs to be registered with the EPA.

Why do Abstractions Need to be Regulated?

Large abstractions or many small abstractions, if not managed correctly, can reduce water levels to an unsustainable amount. This could mean that the water resource can no longer support the demand of people abstracting water or the needs of the wider water environment and species that also depend on the water. For example, pumping too much water from a lake may reduce both the lake's water level and flow in the downstream river, which could impact fish migrating upstream to spawn or damage the habitat of other aquatic species and wildlife.

In the context of the Water Framework Directive (WFD), abstractions need to be regulated to ensure the environmental objectives for river, lake and groundwater bodies, and the flora and fauna of designated water dependent European sites, are not being compromised.

How will the EPA Assess the Impact of Abstractions on Waterbodies?

The methodologies and hydrological limits used to assess abstractions are risk based and cumulative in nature i.e. abstractions are assessed together with other abstractions in the contributing catchment. Depending on the abstraction type, one or more of the following assessments will be undertaken by the EPA.

River waterbody assessment: to determine whether adequate flow is being maintained in the river and associated protected areas to support and maintain healthy ecology. This concept is also known as environmental flow or e-flow.

Lake waterbody assessment: to determine whether the lake's habitable zone (littoral zone), which supports rooted plants (macrophytes) and other biotic species, is not being compromised from changing water levels caused by abstraction.

Cullaun Lake, Co Clare (Photo: Ruth Little)

Groundwater body assessment: to determine if groundwater abstractions are directly impacting groundwater resources (e.g., unsustainable lowering of groundwater levels) and/or indirectly impacting surface waters and groundwater dependent wetlands.

Associated impoundment assessment: Impoundments alter the natural distribution and timing of river flows in natural ecosystems. Impoundments may also act as barriers to the movement of sediment and migration of aquatic species. Abstractions that depend on an impoundment will automatically require a licence because the environmental impacts of impoundments are often complex and dependent on local factors such as impoundment design and prevailing flow conditions.

Find Out More:

EPA website: https://www.epa.ie/our-services/licensing/freshwater--marine/water-abstraction/

Lough Altan, Co. Donegal (Photo: Orla O' Connell)

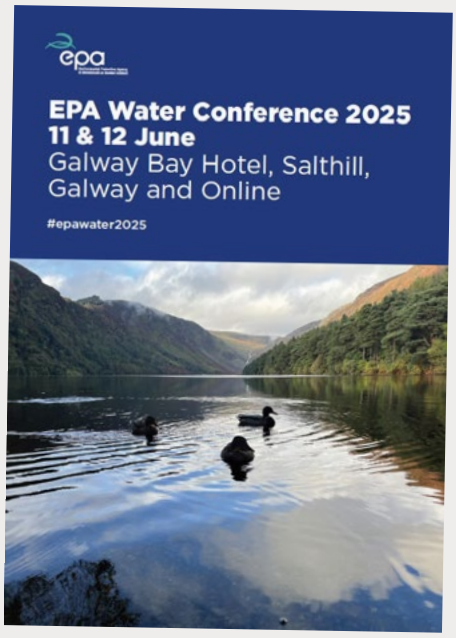
EPA Water Conference 2025 – Now Available to Watch Online

The EPA Water Conference took place on 11 and 12 June 2025 in Galway and online. Over 240 people attended in person, with more than 500 registered online. This year's conference, focused on the theme "Water Framework Directive – Navigating the Policy Landscape."

The event featured sessions on policy direction, water action projects, water quantity and resources, and water quality initiatives. It also addressed agriculture's role in water protection and showcased collaborative efforts across public bodies. The conference highlighted the importance of integrated planning and enforcement, with discussions on legal developments, EU policy changes, and practical case studies from across Ireland.

All session recordings are now available to view online – catch up on the latest developments and discussions shaping Ireland's water future.

WFD Tier 1 (Direction of travel) Navigating the Policy Waterscape	
Implementing the Water Action Plan; Policy challenges and opportunities	**Colin Byrne** Principal Adviser, Water Division, Department of Housing, Local Government & Heritage (DHLGH)
Tracking action – a new approach for water	**Margaret Keegan** Regional Coordinator Midlands and East Region, Local Authorities Waters Programme (LAWPRO)
The National Climate Change Risk Assessment	**Dr. Conor Quinlan** Senior Manager, Climate Services, EPA
Water Action Projects	
Peatlands water quality benefits from the enhanced decommissioning, rehabilitation & restoration scheme (EDRRS)	**Enda McDonagh** Environmental Manager, Bord na Móna
Protecting water sources: reducing pesticide risks in the Erne-Larah catchment	**Lorraine Gaston** Integrated Catchment Manager, Uisce Éireann
Nature Restoration Regulation – what does it mean for water?	**Dr. Rebecca Jeffrey** Wildlife Inspector Grade I, Scientific Advice and Research Directorate, National Parks and Wildlife Service
Water Quantity and Water Resources	
Water Abstraction and Associated Impoundments Authorisation	**Ann Marie Donlon** Inspector I, Water Energy and Business Support, EPA
National Barrier Mitigation Research Programme	**Dr. Ciara O'Leary** Senior Research Officer, Inland Fisheries Ireland (IFI)
Water Quality Initiatives	
The Water Forum – bringing science and stakeholder input to policy	**Dr. Triona McGrath** Research and Policy Lead, The Water Forum – An Fóram Uisce
Biodiversity Data Centre – Invasive Species Action Plan	**John Kelly** Invasive Species Programme Manager, National Biodiversity Data Centre
Investigating the likelihood of harmful algal bloom impacts in Ireland	**Philip Taylor** Environmental Data Scientist, UKCEH
Agriculture	
Agriculture policy response	**Dr. Noeleen McDonald** Agricultural Inspector, Department of Agriculture, Food and the Marine
Better Farming For Water Campaign	**Prof. Pat Dillon** Director of Research, Teagasc
Behavioural insights – ASSAP water quality measure uptake	**Prof. Mary Ryan** Environmental economics research, Teagasc
Managing coastal waters: transitioning from top-down regulation to a balanced bottom-up/ top-down governance approach	**Flemming Gertz** Lead Scientific Advisor, SEGES Innovation



Find Out More:

https://www.catchments.ie/epa-water-conference-2025-videos-now-available/

EPA Publish Water Quality Monitoring Report on Nitrogen and Phosphorus Concentrations in Irish Waters 2024

The Water Quality Monitoring Report on Nitrogen and Phosphorus Concentrations in Irish Waters 2024 is an annual report which provides an update on the results of water quality monitoring to support the assessment of the impact of the nitrates derogation on Irish waters, as required under Regulation 37 of the European Union (Good Agricultural Practices for the Protection of Waters) (Amendment) Regulations.

The assessment incorporates data from over 1500 monitoring stations from the national monitoring network which are representative of the impacts of agriculture on water quality in our rivers, lakes, estuaries, coastal waters and groundwaters.

Here's what you need to know:

The assessment found that overall, nitrogen levels have reduced in 2024 compared to 2023, but remain too high in the southeast of the country. Nitrate is a form of nitrogen which is a nutrient and essential for plant growth. Too much nitrogen in a water body can lead to the over-growth of plants and algae that outcompete and displace other flora and fauna. This excessive growth can also cause oxygen depletion and damage the ecology of our water bodies. Nitrate concentrations above the Drinking Water Standard can pose a risk to human health, particularly for young children.

Phosphorus levels are stable, but elevated concentrations are leading to localised water quality problems. Overall, there has been no significant change in 2024 compared to 2023. Phosphorus is a nutrient which is essential for plant growth. As with nitrogen, too much phosphorus in a water body can lead to the over-growth of plants and algae which disturb the ecosystem.

Nutrient losses from agriculture are a key issue impacting water quality. Ongoing and sustained actions will be needed to reduce nutrients to satisfactory levels before the ecological health of our waters improves.

Read the full water quality monitoring report: https://www.catchments.ie/epa-publish-water-quality-monitoring-report-on-nitrogen-and-phosphorous-concentrations-in-irish-waters-2024/

Targeting Measures for Water Quality Outcomes

Analysis of the gap to achieving Water Framework Directive Environmental Objectives

This analysis published by the EPA, forecasts the number of waterbodies that are likely to achieve their 2027 status objectives, and how many are likely to show improvements, so that an assessment can be made of the gap to achieving Water Framework Directive (WFD) environmental objectives.

Current Status: Out of 4,842 water bodies assessed, only 54% are currently meeting their quality objectives. This leaves a significant number (over 2,200) requiring improvement.

- **Progress Forecast:** The plan aims to improve water quality by 2027. However, the EPA forecasts that only between 150 and 300 "At Risk" waterbodies are likely to meet their targets due to planned measures. In previous years, improvements made in some areas were offset by declines in water quality elsewhere, so there may be no net improvement once again.
- **Challenges Ahead:** The report identifies three key gaps hindering progress: *the measures gap, the effectiveness gap, and the evidence gap*. These gaps highlight the need for more targeted actions, a better understanding of measure effectiveness, and further investigation into waterbodies where data is lacking.

Measures Gap: 864 "At Risk" waterbodies lack specific plans to address pressures like pollution from urban areas, changes to the physical structure of waterways, and invasive species. Without such plans, improvement is unlikely.

Effectiveness Gap: Even where measures are planned, uncertainty remains about their effectiveness. This is particularly true for voluntary measures, where success relies on individual actions and cooperation.

Evidence Gap: For 583 waterbodies, more data is needed to determine the specific water quality issues and pressures before effective measures can be designed.

The EPA's analysis emphasises the importance of continuous monitoring, data collection, and collaboration to refine the plan and ensure its success.

Find Out More:

https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/

Latest EPA Research on Water Quality and Management

The Environmental Protection Agency (EPA) conducts extensive research to protect and manage Ireland's water resources.

In this article, we feature a selection of the latest studies, including research on management strategies for macroalgal blooms in transitional and coastal waters, innovative monitoring of contaminants of emerging concern in Ireland, effect-based monitoring for pharmaceutical pollution, practical methods and assessment tools for characterising oligotrophic lakes, and the ecology and restoration of coastal lagoons. These articles provide valuable insights and solutions to address various water quality challenges, contributing to the sustainable management of Ireland's water ecosystems.

Research 447: Macroalgal Blooms in Transitional and Coastal Waters; Management – Pressures, Policy and Solutions (MACRO-MAN)

Eutrophication of waters and consequent algal blooms place significant pressure on marine ecosystems. Reducing the nutrient load of these waters is essential for ecosystem restoration. The MACRO-MAN project developed innovative methods to assess the environmental quality of Irish estuaries, and to identify drivers of and management strategies for macroalgal blooms. The potential risks associated with macroalgal blooms were considered in a global change context (e.g., climate change, emerging contaminants, biological invasions) in order to investigate the impact on ecosystem functioning and services provided by Irish estuaries. Using Earth Observation technologies, the project mapped the spatial and temporal distribution of brown, green and red macroalgal blooms in Irish estuaries, including the reconstruction of the invasion of a red Asian seaweed (Gracilaria vermiculophylla) in the Clonakilty estuary.

Research 455: Innovative Monitoring to Priorities Contaminants of Emerging Concern for Ireland (IMPACT)

Contaminants of Emerging Concern (CECs) can be defined as "any synthetic or naturally occurring chemical or any microorganism that is not commonly monitored in the environment but has the potential to enter the environment and cause known or suspected adverse ecological and/or human health effects". This research provides a comprehensive insight into the occurrence and fate of CECs in wastewater treatment effluent on entry to Irish receiving waters. Two wastewater treatment plants (WWTPs), one urban and one rural were monitored for one year to identify the temporal and spatial occurrence of more than 100 CECs in the aquatic environment and the WWTPs influents and effluents. This work allows contaminants that are not efficiently removed during treatment of municipal effluents to be highlighted and enables an evidence-based prioritisation list of CECs to be developed in Ireland.

Research 475: Effect-based Monitoring for Pharmaceutical Pollution in Ireland

This research addressed the significant societal and environmental risks posed by active pharmaceutical ingredients (APIs) in water sources. Even at low concentrations these can affect wildlife and potentially humans. The report identifies the main sources of APIs and reveals that certain pharmaceutical compounds are consistently present at measurable concentrations, emphasising the importance of monitoring near waste water treatment plants and in surface waters both upstream and downstream. In addition, the project aimed to assess the effectiveness of ecotoxicology tests in determining the chronic effects of pharmaceuticals and measure toxicity, or modes of action using a battery of bioassays on individual pharmaceutical compounds and mixtures. Using this comprehensive approach, the research provides a deeper understanding of pharmaceutical pollution to inform strategies to mitigate its impact on the environment and public health.

Research 473: Coastal Lagoons: Ecology and Restoration (CLEAR)

Lagoons of good conservation status are dominated by benthic macrophytes rather than phytoplankton blooms. Lady's Island Lake in Wexford is one of Ireland's largest lagoons, it is also one

of our most eutrophic lagoons, this contrast with the 1980s when clear water was matched by a well-developed benthic sward of widgeon grass. This research conducted a suite of investigations into the reasons for the decline and compared the results with a less impacted saline lagoon. The results show severe degradation in Lady's Island Lake with over 10 times higher chlorophyll a levels. Runoff of excessive nutrient inputs of nitrogen and possibly phosphorus from agriculture are identified as the main cause of eutrophication. A proposal to replace sea barrier breaching with a pipe also poses a serious risk to reducing lagoonal salinity. The research proposes a range of remedial measures to protect and improve the benthic quality of Lady's Island Lake and other saline lagoons in Ireland.

Research 484: Framework for Characterising Oligotrophic (3110 and 3160) Lakes Using Practical Methods and Assessment Tools

Oligotrophic lake habitats, which are characterised by low accumulation of dissolved nutrient salts are protected freshwater habitats in Ireland. These habitats support limited life forms, mainly algae and macroinvertebrates. This research report, from the "Peat Lakes" project, looks at the potential of these organisms to help in characterising and conserving oligotrophic lakes using practical methods and assessment tools. It assesses and provides findings on water chemistry and data from plant communities, including macrophytes, algal communities (including desmids), and invertebrate communities from 24 water bodies within Atlantic blanket bog landscapes in the west of Ireland. The report makes several recommendations and provides relevant stakeholders from state agencies with important information for the conservation of small water bodies (area ≤ 0.01 km²), to support the monitoring of favourable conservation conditions in oligotrophic lake habitats, under the EU Habitats Directive.

Research 468: Managing Small Stream Networks for Improved Water Quality, Catchment Biodiversity and Ecosystem Services Protection

Ireland has many commitments to both water quality and biodiversity under policies like the Water Framework Directive, national biodiversity plans, the Habitats Directive and the Nature Restoration Law. Considering these this research refocused attention on the Small Stream Network (SSNet) in terms of water quality management and policy. SSNet is the first large-scale research project in Ireland on first- and second-order streams to undertake investigations spanning hydrochemistry, multiple ecological elements and likely impact of climate change stressors. It advances knowledge on the role of small streams in water quality, biodiversity and ecosystem services and the pressures they face from diffuse and point source pollution. It recommends more water quality monitoring of small streams to help protect biodiversity and water quality further downstream, with priority protection given to areas with high regional biodiversity. Citizen science can potentially facilitate better monitoring.

Find Out More:

https://www.epa.ie/publications/research/water/

EPA Hydrology Summary Bulletins

The Hydrology Bulletin, published by the EPA, provides comprehensive monthly summaries of hydrological data. This includes detailed information on rainfall, river flows, lake levels, groundwater levels, and spring outflows from over 300 monitoring stations across Ireland.

The bulletin aims to offer valuable insights into the country's freshwater and marine environments, helping to inform water resource management and environmental protection efforts.

Find Out More:

https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/hydrology-bulletin/hydrology-bulletin/

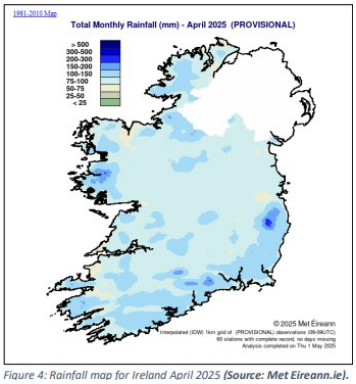
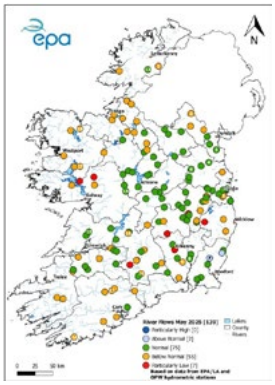
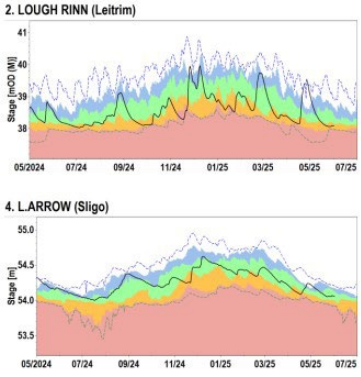


Figure 4: Rainfall map for Ireland April 2025 **(Source: Met Eireann.ie).**





Better Farming for Water-8 Actions for Change Campaign

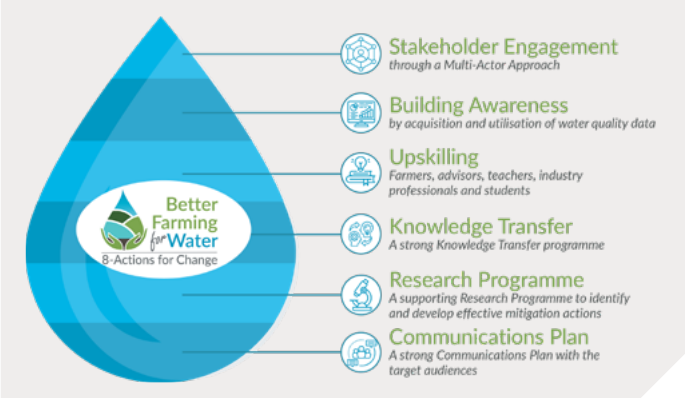
— Prof. Pat Dillon, Director of Research, Teagasc

Abundant, clean and good quality water is a fundamental cornerstone of any thriving society and is necessary for a vibrant economy and enjoyable living environment. A strong and healthy aquatic ecosystem offers vital goods and services, such as the provision of drinking water. Whilst water quality in Ireland is good in a European context, water quality has not improved in recent years. Agriculture is the dominant land use in Ireland, accounting for approximately 70% of the land use; therefore, it is not surprising that agriculture has been identified as one of the main threats to water quality in Ireland.

The Water Framework Directive requires EU Member States to achieve at least good status in all surface water and groundwater bodies by 2027. Good or high ecological status is important for sustaining healthy aquatic ecosystems to support abundant communities of fish, insects and plants. Currently, just over half of Irish surface waters bodies (rivers, lakes, estuaries and coastal waters) are achieving at least good status. The EPA's Early Insight Report published earlier this year shows that nitrogen levels at 20 representative stations on major rivers has reduced in 2024 compared to 2023 and the lowest since 2016. However, further reduction in nutrient loss to water are required to ensure long term improvements in water quality

In 2024, at the request of the Minister for Agriculture, Food and the Marine, Teagasc launched the multi-actor 'Better Farming for Water 8-Actions for Change' campaign. The objective of the campaign is to support all farmers in the adoption of sustainable farming practices that minimise the impact of agriculture on water quality. The campaign will be delivered by way of 6 key pillars (figure 1):

1. Six key pillars of the Better Farming for Water Campaign

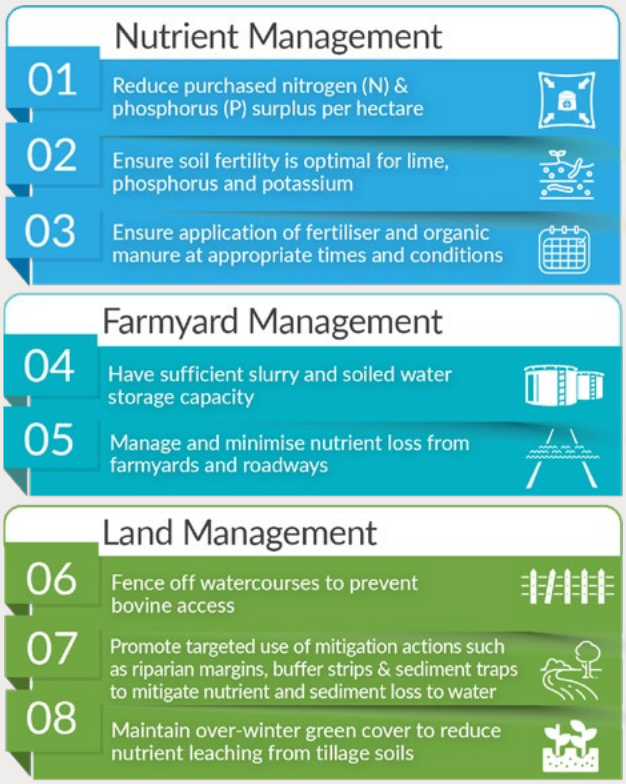


The campaign is building on existing water quality programmes such as ASSAP, Farming for Water EIP, Waters of LIFE, Blue Dot Catchments and the Agriculture Catchment Programme. This requires the creation of strong collaboration between these initiatives and the 'Better Farming for Water' campaign. The continuation of the ASSAP programme will be critical in focusing on priority 'areas for action' across the country where the status of the water is at risk of falling from agricultural pressure. The Farming for Water EIP will be important in financially supporting farmers in the implementation of measures to improve water quality.

Strong collaboration between water quality programmes

The campaign will focus on 8-Actions for Change for farmers to adopt to improve water quality through their farming activities. These 8-Actions for Change provide a structure through which farmers can engage with addressing water quality in a more relatable way, help understand why actions are required, and to have confidence that the action being taken is worthwhile and will lead to a positive improvement. The 8-Actions for Change can be divided into three areas of practice improvement: Nutrient Management, Farmyard Management and Land Management (Figure 2).

2. 8-Actions for Change



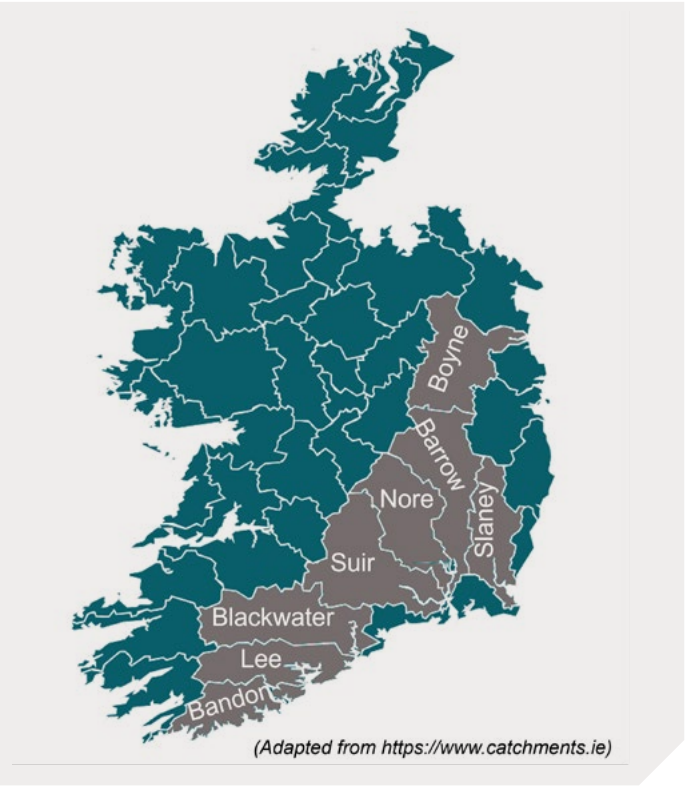
Increasing nutrient use efficiency

Reducing point source pollution from farmyards

Reducing point source pollution from farmyards

The campaign will initially concentrate on the following eight river catchments: Bandon, Barrow, Blackwater, Boyne, Lee, Nore, Slaney and Suir (Figure 3). The EPA had identified these river catchments as 'Catchments of Concern' where nitrogen concentrations are too high. A Campaign Manager has been appointed to lead the campaign as well as 6-Water Catchment co-ordinators; one each to the Slaney, Barrow /Nore, Suir, Blackwater, Lee/Bandon and the Boyne, plus other technical support. The campaign to improve water quality in other river catchments will also continue but to lower level of intensity. The programme is over seen by a steering group which is chaired by Jim Bergin (former CEO of Tirlán) that includes 12 key stakeholders (includes farming organisations, DAFM and EPA).

3. Eight river catchments prioritised



Linking Monitoring and Research with the Restoration of Nephin Forest

— Colin Guilfoyle and Elvira de Eyto

Efforts to restore ecosystems across Europe are accelerating in response to the Nature Restoration Law. Restoration measures such as removing non-native plants, rewetting drained peatlands, and enhancing habitat connectivity are among the strategies recommended by the European Council.

However, these large-scale restoration programmes can be costly, long-term, and may not always proceed as planned. This raises the question of how best to design, implement, and measure the success of such initiatives.

Long-Term Ecological Research (LTER) is instrumental in this context. By capturing data over decades, LTER studies can reveal patterns and trends that complement shorter-term studies focussed on more specific research questions. This combination of short- and long-term research can provide a valuable evidence base for guiding restoration efforts. In Ireland, long-term monitoring programmes are relatively rare but are acknowledged as crucial under the 4th National Biodiversity Plan (2023-2030), particularly in Objective 4: Enhance the Evidence Base for Action on Biodiversity.

3kg Salmon

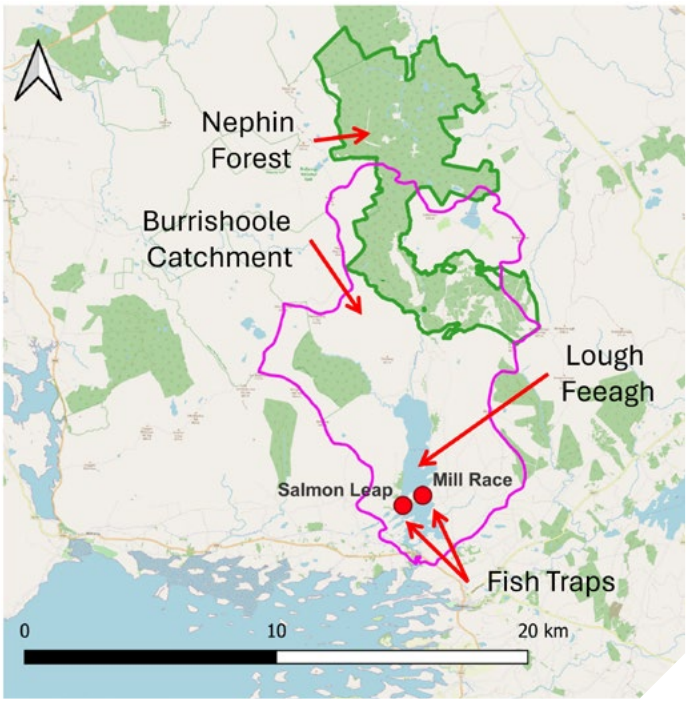
A notable exception to this scarcity of long-term data is in the Burrishoole catchment in Co. Mayo, where decades of monitoring have created a rich ecological record. Since the 1950s, data on fish stocks, water quality, aquatic invertebrates, hydrology, and climate have been collected in the catchment. This ongoing monitoring commenced as part of the work of the Salmon Research Trust, originally established by the Guinness company to study salmon and sea trout. The Marine Institute now maintains these unique datasets which offer critical context for understanding the ecological impacts of environmental change.

In 2021, the management of a large area of commercial coniferous forestry which overlaps with the upper reaches of the Burrishoole catchment, known as Nephin Forest, was transferred from Coillte to the National Parks and Wildlife Service (NPWS) and was subsumed into Wild Nephin National Park. The extent of the forest covers 4,800 hectares and spans from the townland of Letterkeen in the Burrishoole catchment north towards Bellacorick in the Owenmore catchment. Dominated by the North American tree species, lodgepole pine and Sitka spruce, Nephin Forest is typical of most Irish forests planted in the mid to late 20th century. As was also the case for many forests planted during this period of intense afforestation, the underlying soil is mainly peat, which required extensive drainage and fertilisation during the forest establishment process. The impacts of peatland afforestation on environmental factors, including water quality, carbon storage and biodiversity are now well understood. The transition away from commercial forestry to conservation for the Nephin Forest therefore presents a unique opportunity for ecological restoration at scale.

Historical data held by the Marine Institute shows how the Burrishoole catchment has changed in the recent past. The impacts of peat erosion resulting from overgrazing and the initial afforestation of the Nephin Beg range are signalled in the sediments of Lough Feeagh and Bunaveela via paleolimnological techniques. (Paleolimnology is the study of the physical, chemical, and biological information preserved in the sediment of lakes). Meanwhile, long-term records of water temperature and flow indicate the impact of climate change, with rising temperatures and increased rainfall now evident in the data. The permanent fish traps at the seaward end of the Burrishoole catchment (see map) are used to count salmon, trout and eel as they move between freshwater and the Atlantic Ocean. These data tell us that the number of salmon are declining and they are returning to the catchment earlier than in the 20th century, and at smaller sizes. Whilst all these patterns are the result of many combined impacts, there is no doubt that the restoration of the upper catchment should have positive, or at least stabilising, effects on all aspects of the aquatic ecosystems.

Furnace Feeagh

Additional research funded through the Marine Institute (MI) Cullen Scholarship has focussed on gathering ecological data to inform the management of Nephin Forest. The project was conceived jointly by the MI and NPWS, resulting in a 4-year research project, undertaken by Colin Guilfoyle, under the supervision of Dr. Heather Lally, Dr. Conor Graham (Atlantic Technological University, ATU) and Dr. Elvira de Eyto (MI). The project began with a comprehensive habitat survey to establish the current status of plant communities and identify potential reference sites. These reference sites, characterised by relatively natural plant communities, serve as benchmarks for restoration.



Map of Nephin Forest area

The project also examined bird communities using a space-for-time approach, which is a method used in ecological studies to infer long-term changes over time by comparing different locations that are at different stages of development. Coillte have carried out several forest-to-bog restoration projects across Mayo since 2003, and these sites were compared to forested and natural blanket bog sites, to understand how restoration impacts bird communities. Early findings indicate that Birds of Conservation Concern (BoCCI) have responded positively to forest-to-bog restoration, with some species showing increased abundance in restored peatland areas. This research is particularly relevant as NPWS plans to implement large-scale forest-to-bog restoration in the northern sector of Nephin Forest in the coming years. Other aspects of the PhD project have focussed on grazing pressure within Nephin Forest, camera trapping to assess mammal communities and priorities for connectivity improvement in the wider Mayo landscape.

This combination of long-term monitoring, targeted baseline mapping, space-for-time studies and geographic modelling, alongside ongoing wildlife monitoring undertaken by NPWS, is building a strong evidence basis for action in Nephin Forest in the coming years. Despite challenges such as invasive species management and grazing control, continued monitoring and targeted research can inform a comprehensive and long-term management plan for nature recovery in the Nephin Forest, contributing to national and European restoration targets.

Altahoney River

Cullaun Lake, Co Clare (Photo: Ruth Little)

River Flow and Ecology Case Study: The Lotic-invertebrate Index for Flow Evaluation (LIFE) in Irish Rivers

Dr Martin Gammell, Atlantic Technological University

Flow is an important determinant of the biological community in a river. Therefore, changes in flow, due to factors such as instream barriers, climate change or water abstraction, for example, may have negative impacts on river communities, and it is important to be able to monitor such impacts.

The EPA-funded project, Biological Tools to Measure the Impact of Flow on Ecology in Irish Rivers, aimed to develop a number of different methods to monitor flow-ecology relationships in Irish rivers, using macroinvertebrates, fish and macrophytes. Project Manager Martin Gammell is based at the Marine and Freshwater Research Centre at Atlantic Technological University in Galway, and prior to that he worked with the Environment Agency in England, as an ecological appraisal officer monitoring rivers in the east of England.

"During my time with the Environment Agency in England, I regularly used the Lotic-invertebrate Index for Flow Evaluation (LIFE) technique, which had been developed by some of my Environment Agency colleagues for monitoring flow in British rivers, using macroinvertebrate data. Therefore, the LIFE technique was one of the obvious candidate tools to adapt for use in Irish rivers as part of this project." – Project Manager Martin Gammell.

One of the macroinvertebrate survey sites used in this project, on the River Flesk in County Kerry

Because different macroinvertebrate species have varying flow preferences, the macroinvertebrate community at a site can reveal information about flow conditions at that site, and changes in the macroinvertebrate community can reveal information about changes in flow. As flow velocities decline, there should be an increase in the abundance of macroinvertebrates associated with slower velocities, and a decrease in the abundance of macroinvertebrates associated with faster velocities. This link between the macroinvertebrates at a site and its flow history formed the basis for the development of the LIFE technique, and LIFE scores have been found to have strong correlations with measured flows in British rivers, with higher LIFE scores indicating faster flows.

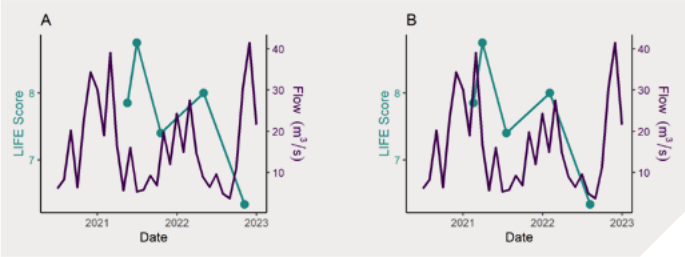
A whirligig beetle (Family Gyrinidae), typical of slower-flowing and standing waters

"The LIFE method can use species-level or family-level data. Because we considered it important that LIFE scores could be calculated using standard data collected by the EPA as part of their river monitoring programmes, we chose to focus primarily on the family-level version of the index. However, due to differences between the British and Irish macroinvertebrate fauna, the British family-level version of the index is not entirely appropriate for Ireland. Therefore, an important first step in this project was to adapt the index for Ireland, and as a result of this work, appropriate family-level LIFE scores can now be calculated for Irish rivers." – Project Manager Martin Gammell.

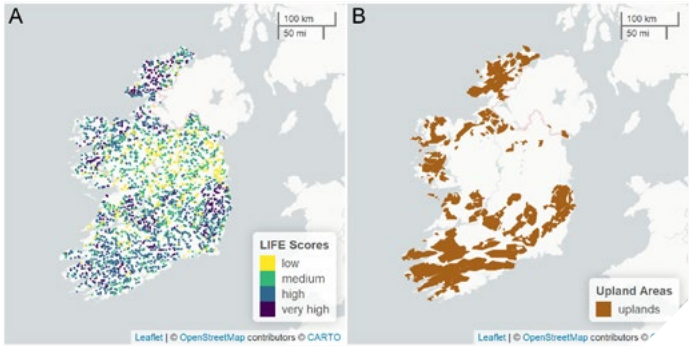
The macroinvertebrate data used in this project were from surveys carried out by the project team in 2021 and 2022 at 47 sites throughout Ireland, as well as from historical EPA macroinvertebrate surveys carried out between 2007 and 2018. The macroinvertebrate survey data was matched with river flow data recorded at nearby hydrometric stations on the same river, to investigate the strength of the relationship between calculated LIFE scores and measured river flows.

"Our results were very encouraging. We found strong positive relationships between calculated LIFE scores and measured river

flows, and at a number of the sites that we surveyed, calculated LIFE scores closely tracked changes in flow at the site. We also examined the distribution of LIFE scores throughout the country, and as expected, lower LIFE scores were concentrated in lowland areas and higher LIFE scores were concentrated in upland areas. The adapted family-level LIFE technique is therefore a useful tool for monitoring potential impacts of changes in flow on macroinvertebrate communities in Irish rivers." – Project Manager Martin Gammell.



Overlap of LIFE scores, calculated from five macroinvertebrate surveys at a single monitoring site, with flow measurements from that monitoring site's matching hydrometric station. In Panel A, LIFE scores were plotted against the exact dates on which the macroinvertebrate surveys were carried out. Panel B shows the same data as Panel A, but with LIFE scores plotted against dates exactly three months earlier than the dates of the macroinvertebrate surveys, demonstrating that LIFE scores closely tracked changes in flow at this site, once the lagged response (approximately three months in this case) of the LIFE scores to flow was taken into account



Distribution of median LIFE scores (Panel A) for all EPA river monitoring sites for which macroinvertebrate data were available between 2007 and 2018, compared to the distribution of upland areas (Panel B).

An online dashboard, that can be used to calculate family-level LIFE scores for Irish rivers (as well as two other macroinvertebrate-based hydroecological indices) was also developed as part of this project, and is available here: https://mgammell.shinyapps.io/biotic_index_dashboard/

Find Out More

www.flowecology.com

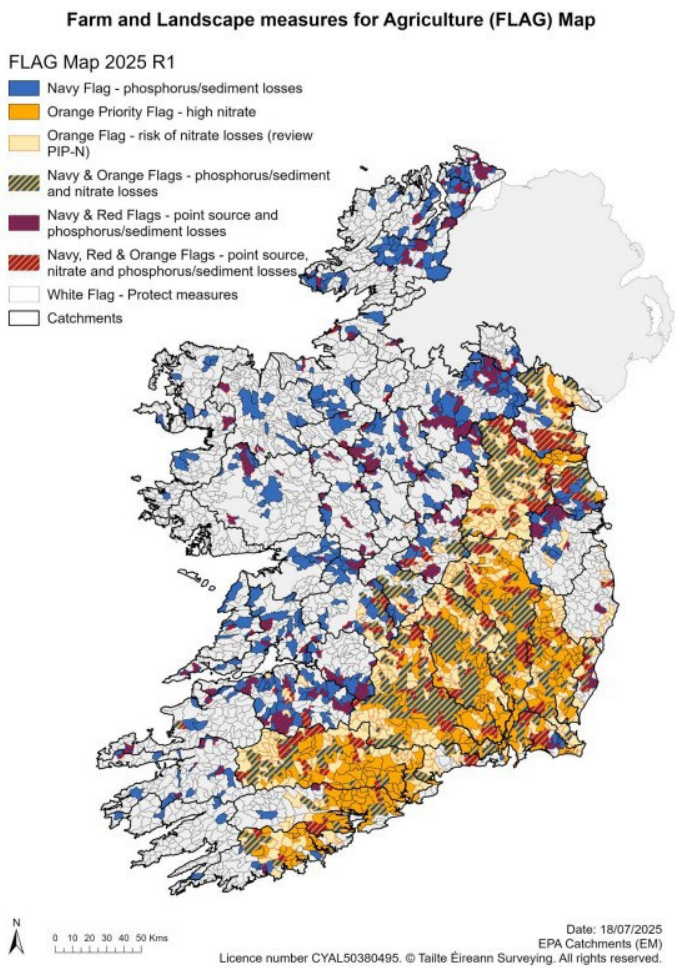
New Updates to EPA Tools for Targeting Agricultural Measures to Protect Water Quality

The EPA's online mapping tool for Farm and Landscape Measures for Agriculture (FLAG)—previously the Targeting Agricultural Measures map—has been updated with monitoring data up to 2024.

The map shows where agricultural measures are needed to help restore water quality, highlighting areas impacted by nitrogen, phosphorus/ sediment, or ammonium. It supports farm-level advice, inspections, and national programmes like Better Farming for Water and the Farming for Water EIP, helping ensure the right actions are taken in the right places.

Find Out More:

https://www.epa.ie/news-releases/news-releases-2025/new-updates-to-epa-tools-for-targeting-agricultural-measures-to-protect-water-quality.php



Peatlands Climate Action Scheme is helping to improve Water Quality

By Bord na Móna

Bord na Móna (BnM) is a semi-state renewable energy provider supporting Ireland's journey to net zero by delivering secure, renewable energy for businesses and homes across the country.

BNM Bog

Working with our landbank, strategic partners, and local communities, we are building a 5GW renewable energy pipeline, including onshore and offshore wind, solar, biomass, and biogas projects – enabling industrial growth while contributing to our sustainable future.

BnM manages a land holding of over 80,000 hectares. In 2020, BnM announced the cessation of peat production on all of their bogs. Peat had been extracted from these BnM bogs under Integrated Pollution Control (IPC) licences issued and administered by the Environmental Protection Agency. As part of Condition 10 of this licence, decommissioning and rehabilitation must be carried out when industrial peat production ceases.

In line with BnM's accelerated decarbonisation strategy, and the availability of government funding, the company committed to ambitious enhanced peatland decommissioning, rehabilitation, and restoration measures, targeting circa 33,000 hectares in over 80 BnM bogs.

"We're restoring and rehabilitating our bogs to help meet climate and biodiversity goals."

The Peatlands Climate Action Scheme (PCAS), also known as the Enhanced Decommissioning, Rehabilitation, and Restoration Scheme (EDRRS), is administered and regulated by the National Parks & Wildlife Service. Funding for the scheme is secured through the EU Recovery and Resilience Facility (RRF), the key instrument at the heart of NextGenerationEU. At a national level, this funding is administered through Ireland's National Recovery Resilience Plan (NRRP).

The primary aim of PCAS is to optimise the climate action benefits of rewetting the former industrial peat production areas by creating soggy peatland conditions that will allow compatible peatland habitats to redevelop and thereby reduce carbon emissions. While the scheme is primarily a climate scheme, the rehabilitation will also provide benefits to biodiversity and water quality.

Enhanced Rehabilitation Measures

Enhanced rehabilitation measures include blocking production field drains with peat drain blocks alongside more intensive measures such as creating low bunds to hold water and re-profiling of peat fields to create more suitable flatter topography to maintain optimal hydrological conditions. These measures will allow for a more uniform coverage of water at an ideal depth (c.100mm ±50mm) for vegetation colonisation and in particular, the development of mosses where conditions are suitable.

Ballaghurt Bog (Pre PCAS) 25/4/2023

Ballaghurt Bog (Post PCAS) 2/7/2024

Monitoring

Monitoring is carried out to determine whether objectives have been reached. Examples of these objectives include reduction in bare peat cover and establishment of suitable habitats including Sphagnum-rich vegetation, creation of suitable hydrological conditions, reduction in greenhouse gas emissions, reduction in fluvial carbon emissions and improvements in water quality.

There is a robust monitoring program to track and verify any changes in baseline water quality conditions pre- and post-decommissioning and rehabilitation so that the success or otherwise can be tracked and verified for the National Parks & Wildlife Service, Environmental Protection Agency, and Local Authority Water Program, amongst a range of stakeholders.

"The key objective of peatland rehabilitation is environmental stabilisation."

Water Quality Monitoring

While BnM operated under an IPC licence with discharges from their bogs within the IPC licence parameters, the cessation of peat production and the implementation of rehabilitation have been shown to further lower these suspended solids. The drainage channels resulted in a lowering of the water table, which disrupts the ecosystem balance, as well as providing flow pathways for fine sediment and ammonium to reach waterbodies.

Ammonia is produced when organic compounds are decomposed through microbial action induced by drainage/lowering of the water table. Un-ionised ammonia is toxic to fish. Ammonia is oxidised into ammonium and then nitrite and nitrate through nitrification. In waterbodies that are currently 'At risk' of not achieving their water quality objectives, where peat is a significant pressure, the annual average concentration of ammonium is often elevated above the environmental quality standard (EQS) of 0.065 mg/l as N that is required to support Good Ecological Status. Over the last decade, however, these waterbodies have generally shown a consistent reduction in ammonium concentrations, and in recent years, average concentrations in some of these waterbodies have dropped below the standard. Further work is planned during the third cycle to understand the reasons for this (EPA, Sector, Pressures/Issues).

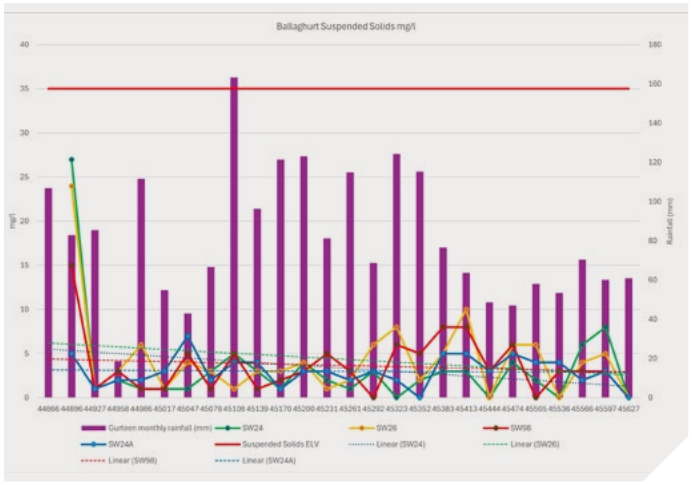
Flow Monitoring

Preliminary flow monitoring results from two bogs indicate that during rainfall events, discharge is significantly lower on rehabilitated and vegetated peatland compared to bare peat areas where the peat extraction network remains intact.

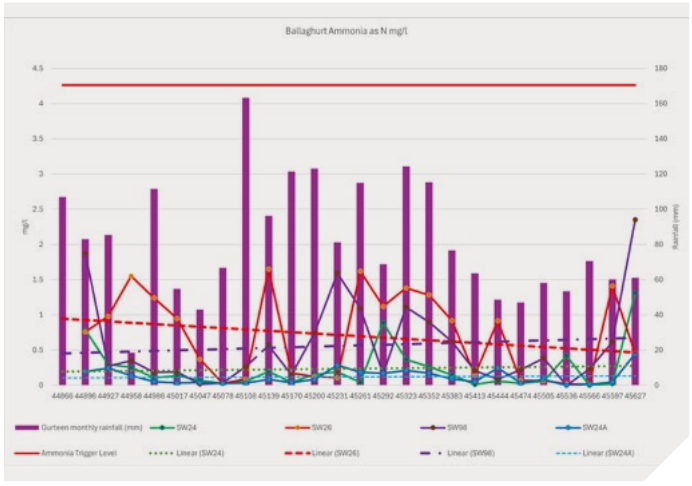
Key Success Criteria

The key water quality success criteria associated with this enhanced rehabilitation are as follows:

- That there is a stabilising/improving concentration of suspended solids and ammonia in discharges from BnM sites, associated with the measures undertaken to stabilize the peat surface by the blocking of the internal drainage system and the maximized rewetting of the peat surface.
- Receiving water bodies have been classified under the River Basin Management Plan and this classification includes waters that are "At Risk" from peatlands and peat extraction. The success criteria will be that any "At Risk" classification will see improvements in the associated pressures from this peatland, or if remaining "At Risk", that there is an improving trajectory in the pressure from this peatland.



Ballaghurt Ammonia as N mg/l



Ballaghurt Suspended Solids mg/l

Find Out More:

www.bnm.ie / www.bnmpcas.ie / pcasinfo@bnm.ie

Reducing runoff at source: How the rivers trust is delivering catchment-wide interventions to help tackle blue-green algae in Lough Neagh

By Mark Horton, The Rivers Trust All-Ireland Director

The Rivers Trust network spans Ireland, Northern Ireland, and Britain and is dedicated to protecting rivers and their catchments from source to sea. It brings together local Rivers Trust (6 in Northern Ireland and 14 in Ireland) under an island-wide, catchment-based approach. This collaborative model means that river health is tackled not just as individual challenges, but across whole river networks and communities.

In April this year, The Rivers Trust hosted an online conference, *'A Bloomin' Disaster: The Causes and Costs of Blue-Green Algae,'* bringing together experts and community leaders from across Ireland, the UK, Europe, and beyond. The agenda examined why blooms of cyanobacteria (also known as blue-green algae) are becoming more frequent and severe, and what solutions are available to tackle them. Unenviably, the conference pointed to Lough Neagh, the UK and Ireland's largest freshwater lake, as a 'case study' problem.

Indeed, blue-green algal blooms have afflicted many waterways across the island of Ireland, Britain and internationally, and their impacts are far from harmless. Besides discolouring water, these blooms deplete oxygen and release toxins, threatening wildlife, drinking supplies, recreation, fisheries, and local economies.

The Rivers Trust emphasises that no single silver bullet can solve the problem. Instead, a suite of catchment-wide measures is needed. Science, data, and experience demonstrate that solutions must be multi-sectoral, combining on-farm measures, improvements in sewage infrastructure, and wider and better use of Nature-based Solutions.
Funded by the Department of Agriculture, Environment and Rural Affairs, The Rivers Trust is currently delivering the Sustainable Catchment Programme (SCP) in selected catchments in Northern Ireland to help reduce agricultural pollution at source, through non-regulatory advice, support, and capital funding for water quality protection measures.

The SCP places trained Water-Friendly Agricultural Advisors on the ground to help each farmer develop a bespoke whole-farm water management plan. Along with the landowner, the advisors walk each farm, identify pollution risks, and outline eligible measures so that 'the right measures are in the right places' to protect freshwater sources. Practically, the SCP has already helped deliver and fund a suite of common farm improvements. Examples include:

- **Livestock exclusion fencing** and grassy buffer strips along rivers (keeping cattle off streambanks and filtering runoff).
- **Off-stream livestock watering points** – concrete troughs with pumps and piping, solar pumps, and pasture pumps – so animals drink away from the river.
- **Tree and hedge planting** in fields and along watercourses to intercept nutrients and improve soil quality.
- **Clean/dirty water separation** on the farmyard (drains and bunds) plus covered slurry pits or silage clamps, which stop clean rainwater filling dirty water and slurry tanks and reduces the risk of manure-rich water from running into nearby streams and rivers.
- **Improved tracks and concrete yards** are designed to reduce soil erosion and keep rainwater from flushing soil into streams.

A combination of nature-based and grey infrastructure, water-friendly measures are tailored to each farm's particular needs. The SCP has delivered thousands of metres of fencing, riparian hedging, and trees, as well as dozens of solar pump troughs and extensive clean and dirty water separation measures, along with knowledge transfer and farmer support.

The on-farm work is already showing multiple benefits. Farmers report easier maintenance routines and tangible improvements in water quality and animal health. For example, by separating clean roof runoff from dirty yard drainage, many have seen more available storage for slurry and effluent, cutting pumping and spreading costs and time. Clean–dirty separation also means less nutrient-laden water enters drains, allowing for better use of the available storage and reducing the risk of pollution spills. There is always an emphasis on win/win outcomes. These measures are all designed to keep nutrients on the field and out of local rivers, many of which are feeding into Lough Neagh.

Looking ahead, The Rivers Trust continues to expand support under the SCP and related programs. Additional grant streams now allow for up to 75% funding of such interventions, encouraging more farmers to participate in the program. These schemes, along with awareness campaigns and continued collaboration with all relevant stakeholders, build on a simple principle: when farmers help protect the land and water on their farms, not only the farm business, but also wider society reaps the reward of cleaner water and stronger ecosystems. Together, farmers and communities

in river catchments across Northern Ireland are demonstrating that real-world action and shared learning will help turn the tide on blue-green algae, thereby safeguarding our rivers and lakes, including the iconic Lough Neagh, for future generations.

All measures installed through The Rivers Trust's Sustainable Catchment Programme to support water-friendly farming in Northern Ireland

Farm Track and Gate Upgrade Adjacent to a Watercourse:

This upgraded track with gravel and sand surfacing, along with a new livestock gate, helps to stabilise heavily trafficked areas near streams. By reducing mud and runoff during wet weather, this intervention prevents nutrient-rich sediment from being washed directly into the watercourse, protecting water quality downstream.

Fencing Alongside a Stream to Prevent Livestock Access:

Newly installed post-and-wire fencing prevents cattle and sheep from entering the stream, reducing bank erosion and direct nutrient input from animal waste. Buffer zones like this play a critical role in intercepting diffuse pollution and restoring riparian vegetation.

Concrete Drinking Trough on Raised Base:

This clean water trough, placed on a durable concrete base and set back from the watercourse, provides an alternative drinking source for livestock. By removing the need for animals to access the river directly, this measure reduces faecal contamination and nutrient runoff, helping to safeguard water quality.

Solar-Powered Pasture Pump for Livestock Water Supply:

This solar-powered pump draws clean water from a nearby stream to a trough in the field, eliminating the need for livestock to enter the watercourse. It is an energy-efficient, low-maintenance solution that helps reduce bank erosion and direct faecal pollution

Find Out More:

The Rivers Trust conference A Bloomin' Disaster: The Causes and Costs of Blue Green Algae is available for viewing free on YouTube at https://www.youtube.com/watch?v=17MmC-Y5dnA

Photo credits: All images provided courtesy of The Rivers Trust.

(L-R) Diarmuid McSweeney (Waters of LIFE), Anne Goggin (Waters of LIFE), Darrent Deasy (North Cork Creameries) at Advisor Training in the Shournagh Valley, June 2025.

How do you Reduce Agricultural Pressure on Water Quality? One Farmer at a Time.

Ross O'Donoghue - Waters of LIFE

The landscape for water quality has evolved since the launch of Waters of LIFE in 2022. News of cuts to nitrogen derogation limits emerged a year later. So too did greater plans to support farmers on their journey to reduce the loss of nutrients to water.

The €60 million Farming for Water EIP was launched in March 2024. Teagasc's Better Farming For Water came three months later.

Fish kills and chemical spills kept water quality in the headlines along the way.

All the while, Waters of LIFE was building its capacity as an EU-funded project. Scientists were recruited and plans were put in place to deliver on the buzz words that excited launch attendees in April 2022 – "collaborate with local landowners"; "build their capacity to protect and improve water quality"; "test the results."

"The reality of working with landowners, is that those relationships have to be built one at a time," says Waters of LIFE project manager Anne Goggin.

"We've had really successful media campaigns, we've had great support from our project partners and our public events have been well attended. But at the end of the day, it's the one-to-one conversations that are needed when recruiting farmers into our programme pilot."

It speaks directly to principles of behavioural change. You may meet a farmer early in a 'precontemplation' stage of change. They might be resistant to change. They may just not know how agriculture can effect water quality, but a conversation is required either way.

Equally, you may have a farmer who's ready for action on water quality and prepared to make a change. But every farm is unique,

so they'll still need to sit down with a catchment scientist to talk about a farm plan.

"Our recruitment campaign needed nine months to complete," explains Anne Goggin.

"We relaunched our project to our communities in July 2024 with a ground-up approach. We asked locals to share with us what they knew about local rivers and were pleasantly surprised with the amount of farmers that came through the door.

"That feedback informed our public meetings in September 2024 before our catchment scientists hit the road and engaged farmers at the gate and in the farm yard. Sometimes, you have to be willing to wave down the tractor. That's not something we've ever gotten a negative reaction to either."

The process led to 25% of eligible farmers expressing their interest across Clare, Cork, Galway, Roscommon and Wicklow. Waters of LIFE work in five select demonstration sub-catchments.

Individual farm plans were created for all interested farmers. Clinics were held. Phone calls and house calls were made. Contracts were signed. Over 250 farmers signed up for Year One of the Waters of LIFE Pilot Agri-Environmental Programme.

"We were able to make individual contact with 95% of our expressions of interest and it translated into about a 75% conversion rate," Anne says. "Most of the farmers' decision making came down to answering a simple question: Is the reward enough when compared to the time and effort required to change behaviour?"

"And it's perfectly understandable. We all make decisions on that basis in business and in life."

"You need to put the arm around the farmer and bring them on the journey," says Darren Deasy, Milk Quality Advisor with North Cork Creameries. "You have to listen to them."

Conor Roche farms in the Shournagh sub-catchment in Co. Cork. As a Waters of LIFE programme participant, his advice to the project was simple.

"Work with fellas. See what works, what doesn't work and tell us," he said. "If we're doing it wrong, we'll fix it. We want to stay farming and the regulations aren't working. I want to know what the water is like right now so I can do something about it."

As a pilot agri-environmental scheme, the Waters of LIFE programme is costed based on income forgone and costs incurred. The project built in an allowance for the gross margins in dairy to make participation more attractive to that sector. But as noted in EPA Report No. 482 on Mitigating Agricultural Impacts, "the market gains for improving water quality are not clear for enterprise actors."

This is reflected in Waters of LIFE programme entry data. Enterprise type was a key factor. Out west, over 100 farmers came into the programme in the Islands sub-catchment. Over one quarter of eligible farmers in Wicklow and Clare signed their contracts. In the more intensive dairy farms of Co. Cork, that number was lower.

But the one farmer at a time approach is already yielding results for Year 2 of the programme in Cork. To provide a degree of scale to that approach, working with farmers' trusted advisors is vital.

Shournagh Valley, Co. Cork June 2025.

Waters of LIFE has over 50 advisors working directly with farmers. They've all come through a comprehensive training programme with classroom, online and field training specific to water quality. Now they're spreading the word to their existing client bases in Waters of LIFE sub-catchments.

"If advisors don't get excellent training from the start, their advice won't be adequate," says Darren. "The training is very important."

Agricultural Advisor Training, Shournagh Valley, Co. Cork June 2025.

North Cork Creameries have 140 milk suppliers in with Farming For Water EIP and up to 20 in with Waters of LIFE.

"Of course the bottom line is important to farmers. We want profitable milk suppliers and you need to incentivise farmers to make improvements. But it's great that the funding is there. We just need to make people aware of the benefits."

Waters of LIFE aren't the first project to engage farmers on water quality. And the conversation around the health of our rivers has taken a leap forward in recent years. But the project are still meeting farmers who haven't had that conversation.

It's already time for action, but there is no voluntary action without the chat first. One farmer at a time.

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If you have a story for a future issue, please get in touch via www.catchments.ie/contact/ or scan the QR code.

We want these stories to inspire more people to take part in looking after their local community's environment, and particularly our waterbodies.