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Public Meeting

Islands Demonstration Sub-Catchment

30/09/24

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We are an EU LIFE integrated project (2022-2028).

LIFE programmes are how the EU funds environment and climate action.

As an 'IP,' our work is directly connected to Ireland's River Basin Management Plan.

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Aim to protect and restore high status objective rivers

- We pilot water quality measures with landowners
- We test how effective the measures are
- We help communities understand water quality

Our work supports LAWPRO's Blue Dot Programme.

Blue dots are water bodies with high status or an objective to gain high status (about 10% of river water bodies)

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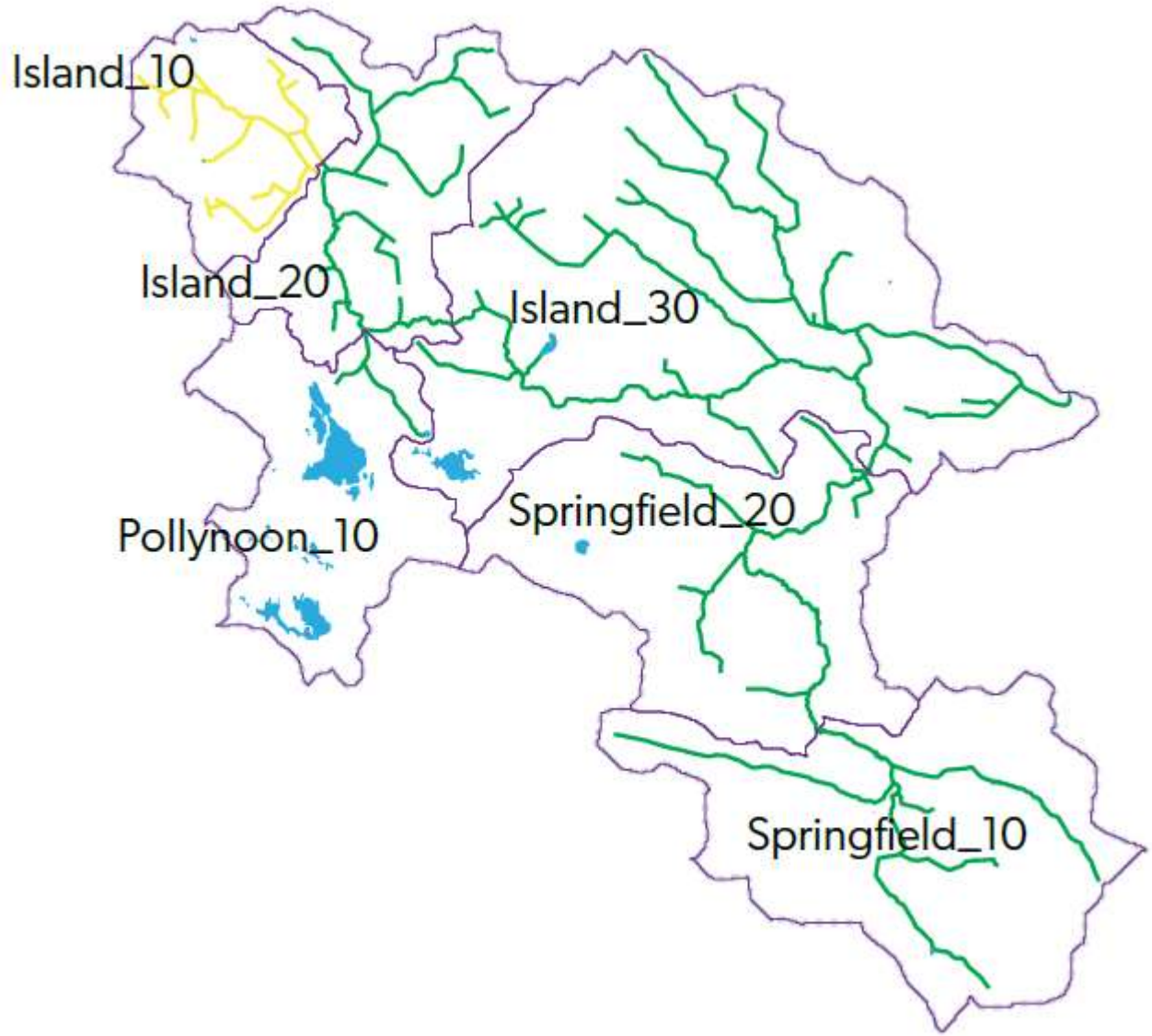

Blue Dot:

- Island_30

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Demonstration Sub-Catchments

Avonmore	Wicklow
Graney	Clare / Galway
Islands	Roscommon / Galway
Awbeg	Cork
Shournagh	Cork
Sheen (Control)	Kerry

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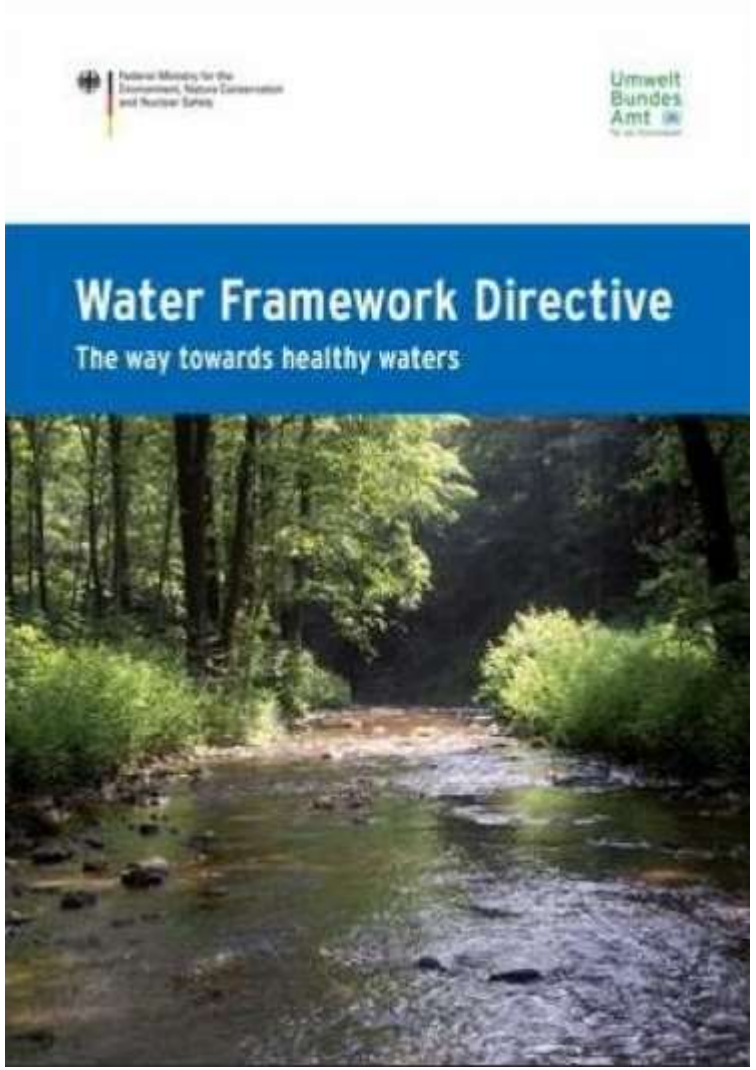
The Water Framework Directive is a legal commitment to protect and restore water bodies across Europe.

The status of surface water bodies must be 'good' or better by 2027.



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The River Basin Management Plan is Ireland's plan to meet our legal commitments under the Water Framework directive.

We must:

- Protect 'good' status water bodies and all 'high' status water bodies
- Restore all 'bad' 'poor' and 'moderate' water quality to at least 'good'

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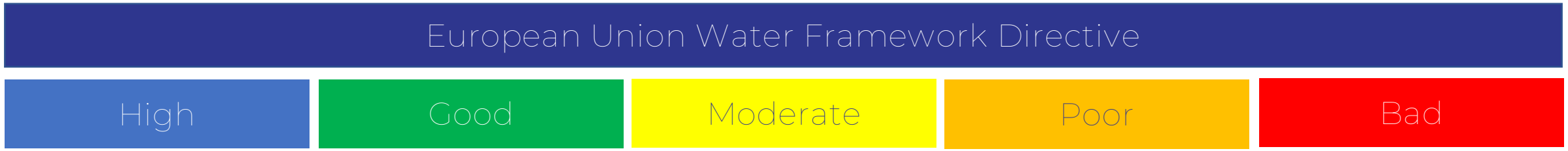
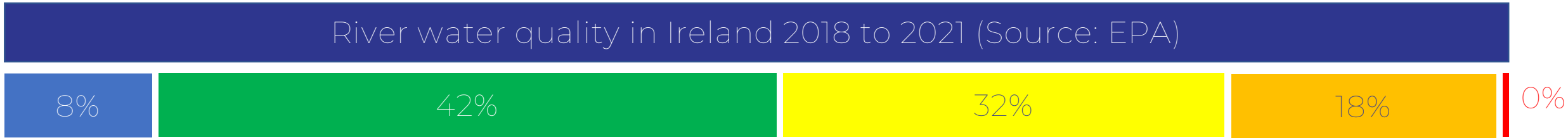
What is Water Quality Status?

Ecological and chemical status tells us if the water is clean and the habitat is healthy.

It is not the same as drinking water quality or bathing water quality.





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How do water bodies get their status?

The EPA gives status based on:

Biology:	What plants and animals can live in the water?
Water Quality:	How much nutrients and harmful chemicals are in the water?
Hydromorphology:	What is the form, flow and function of the water and channel?

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Would you like to know more?

Come to a community science event

Experience:
Your local river's ecology
Link between ecology & water quality
How we test water quality

Say 'yes' on the attendance sheet.

Sean Farrell

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- We need clean water to survive
  - High water quality needs less treatment to make it drinkable
- Ireland's natural environment is special
  - It needs healthy rivers to survive.
  - High status waters have a unique biodiversity .

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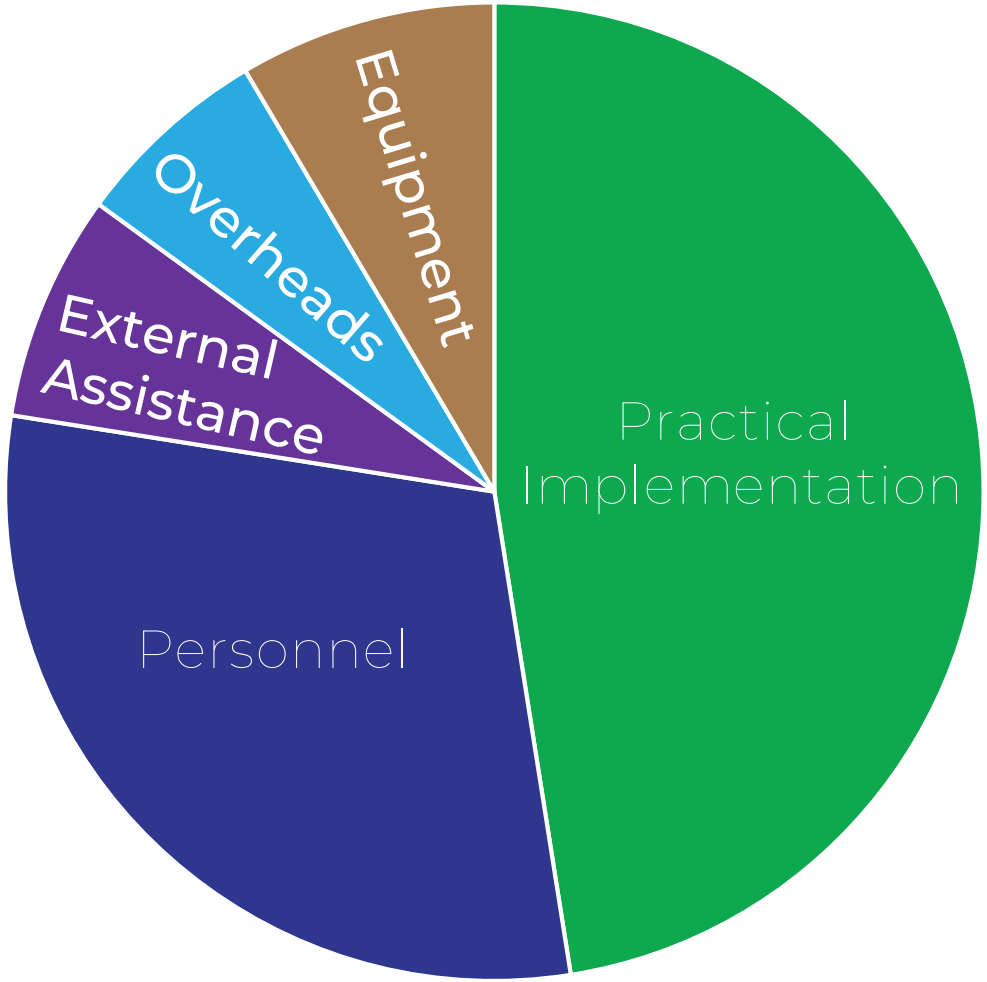
Project Funding

- €20m is total funding for entire project
- Much of figure is contribution in kind
- About €9,000,0000 ring fenced for practical works including the pilot agri-environment programme



ABOUT THE PROJECT: HOW WE ARE DIFFERENT

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	Waters of LIFE	ACRES CP	Organics	Farming For Water EIP	Better Farming For Water
EU Funded	✓	✓	✓	✓	✗
CAP Funded	✗	✓	✓	✓	✗
Results Based	✓	✓	✗	✗	✗
Pilot Scheme	✓	✗	✗	✗	✗
Commonage	✗	✓	✗	✗	✗
Double payment	✗	✗	✗	✗	N/A
Voluntary	✓	✓	✓	✓	✓

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Where land and facilities are publicly managed, we work directly with our project partners and other public bodies on relevant measures. Our national project partners:

COILLTE
GROW · TRANSFORM · SUSTAIN

epa
Environmental Protection Agency

Local Authority Waters Programme
vibrant communities | catchment assessment | healthy waters

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

OPW
Oifig na nOibreacha Poiblí
Office of Public Works

Forest Service

An Roinn Talmhaíochta, Bia agus Mara
Department of Agriculture Food and the Marine

teagasc
Agriculture and Food Development Authority

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For landowners, our project features an environmental programme to support farmers and private foresters.

This includes a pilot results based payment programme for water quality measures. The programme is entirely voluntary.

We also provide free advice and guidance to non-farming landowners.

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For communities, we engage with:

- Public Meetings
- Citizen Science
- Community events
- Schools
- Local interest groups

April 2024 – North East Galway Beef Producers Group. Attendance: 50

October 2022 – Ballymoe. Attendance: 38

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The RESTORE Project is a sister project to independently detect change and assess effectiveness of measures:

- Approach customised for Islands
- More monitoring points and more data
- Monitoring points installed to assess specific measures.

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EUROPE: CAP Strategic Plan (August 2024)

- "The quality of water bodies will be improved through multiple interventions"
  - We will feed into CAP 2028 by piloting work with landowners that can make a difference.

IRELAND: River Basin Management Plan

- Direct report to the Water Advisory Unit of DHLGH
- Project integrated into RBMP plan delivery

WHAT YOU TOLD US

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"It's just a typical rural area with a strong sense of community."

"It's known that the water quality is good around here and the people are proud of that."

"I find people are more conscious about the litter and sorting their bins. The bottle banks get great use."

"We all need clean water and we want to do our best to get it. It's going to take time to get things right."

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"Grandad! We saw a monster! (It was a crayfish)."

"The message is getting across about biodiversity. We're better at managing effluent and things like that."

"You'd see them by the score when we were jumping in the river. As soon as they dug out the river, there wasn't a crab left in them."

"We've seen otter. We've seen Kingfisher. You can see the crayfish at night. We'd be interested in putting in camera traps."

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"The farmers are in a lot of the schemes around here. It's common sense really, but it's not for everyone. You get out of it what you put in."

"If you don't do something with it, you can't do anything with the land."

"By putting in traps, you hold back the silt. I drain from lands around me. The drains are overgrown but the traps help."

"There's no mad intensive farming around here either."

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"What about cleaning this river?"

"No topping? Let it go wild and it will go pure wild. You'll have every furze and tree growing out of it."

"What about a once-off cleaning of the rivers?"

"What about Cleaning? 15 years ago there was a long reach digger being used."

"When I was a child they cleaned the river every 5 years. I couldn't cross the river it was so wide."

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"What about cleaning the rivers? It was cleaned out 40 years ago. They brought a drag liner in and went from one end to the other until it was levelled. It would throw clay up onto the banks."

"If you go rooting you'll destroy the species that are there, the crabs and minnow. It would 10 years to put it right. I'm not in favour of diggers coming in again."

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The sewage treatment is barely coping in Ballymoe.

We're concerned. Is there an update?

Yes.

We reached out directly to Uisce Éireann on your behalf and they came back to us with an update.

We'll share that with you now.

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"Decision made to provide secondary treatment following assessment of appropriate ELVs."

ELV = Emission Limit Values
They reflect the ability of the river to cope with discharge

"Assessment undertaken to confirm if constructed wetland would be a suitable solution for the site – the outcome of this assessment was that the site and associated discharge ELVs are suitable for constructed wetland."

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Constructed wetland = Integrated Constructed Wetlands.

- Natural wastewater treatment system
- Designed to look and function like natural wetland.
- Environmentally friendly way to treat wastewater
- Ensure wastewater is treated in compliance with regulations

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"Ballymoe is therefore now included in the Nature Based Solutions Wastewater Programme.

Ballymoe is currently at Stage 2 – Preliminary Business Case, and a Feasibility Study is underway."

Stage 1 = Strategic Assessment
Stage 2 = Preliminary Business Case
Stage 3 = Final Business Case
Stage 4 = Implementation (Construction)

We do not know what the timelines are.
We have asked the question and will follow up.

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We need to understand more about what you mean when you say 'cleaning.'

We need to talk about how a cleaned-out river doesn't mean a 'healthy' river.

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We know you can't work the land when it's wet.

We say there are different ways to get the land to work for you. That includes farming for water quality as well as produce going out the gate.

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We need to look at the historical context of cleaning and drains.

We need to talk about how other river beds are being restored in other catchments.

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We don't want to see scrub take over the riverside.

We want healthy riverside habitats to be protected.

This project exists because that can't be done without farmers and the community.

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We won't figure it out tonight.

We need to meet and talk more.

There's one added element.

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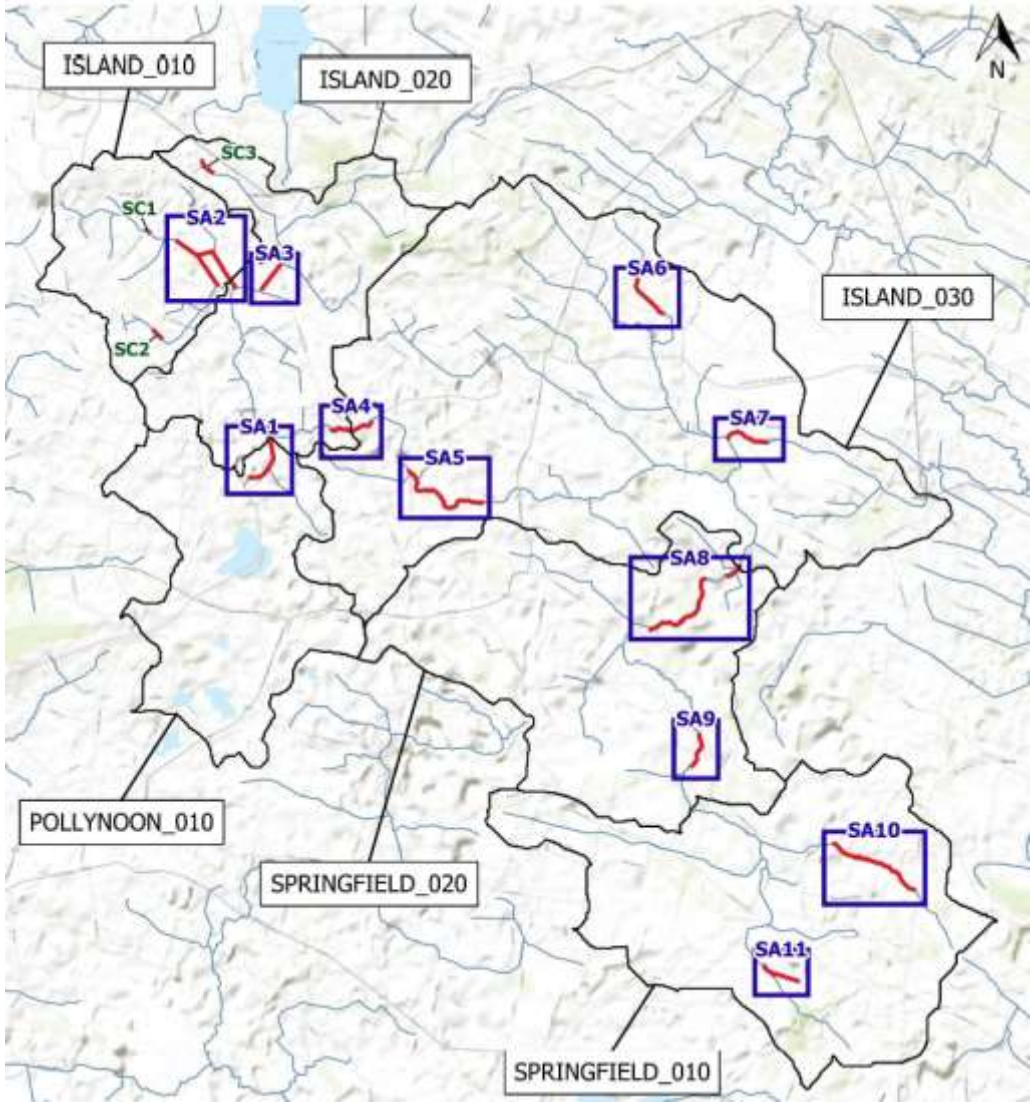
CBEC ASSESSMENT AND RESTORATION

- CBEC Eco-engineering consultants
- Commissioned on behalf of project
- Report on River Assessment and Restoration
- Help with pressures on the form, flow and function of rivers
- Focus on the cause not the symptom
- Walkover survey in certain areas



cbec eco engineering

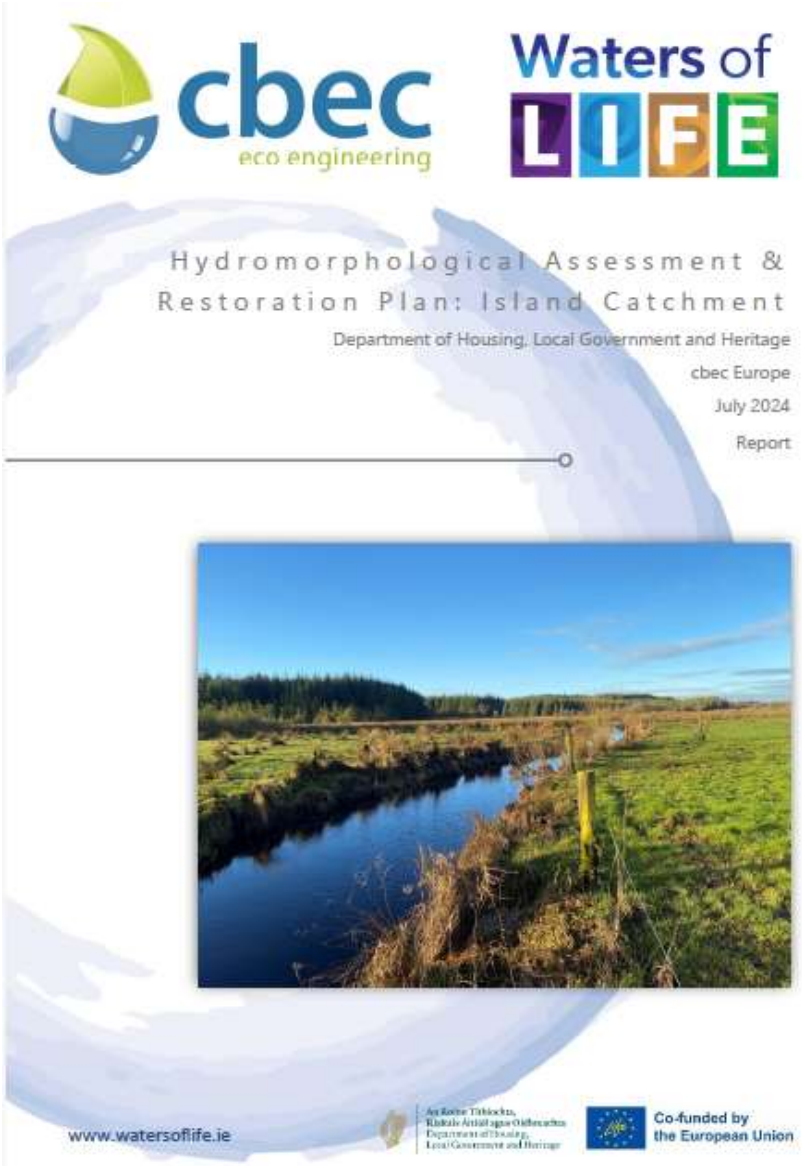
CBEC ASSESSMENT AND RESTORATION

Report Recommendations:

- "Nature-based solutions that rebalance sediment supply and transport."

Next steps:

- Discuss assessment with local landowners
- Publish report summary
- Take the next steps together



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You are proud of your community and your land.

You are also proud of good water quality and biodiversity.

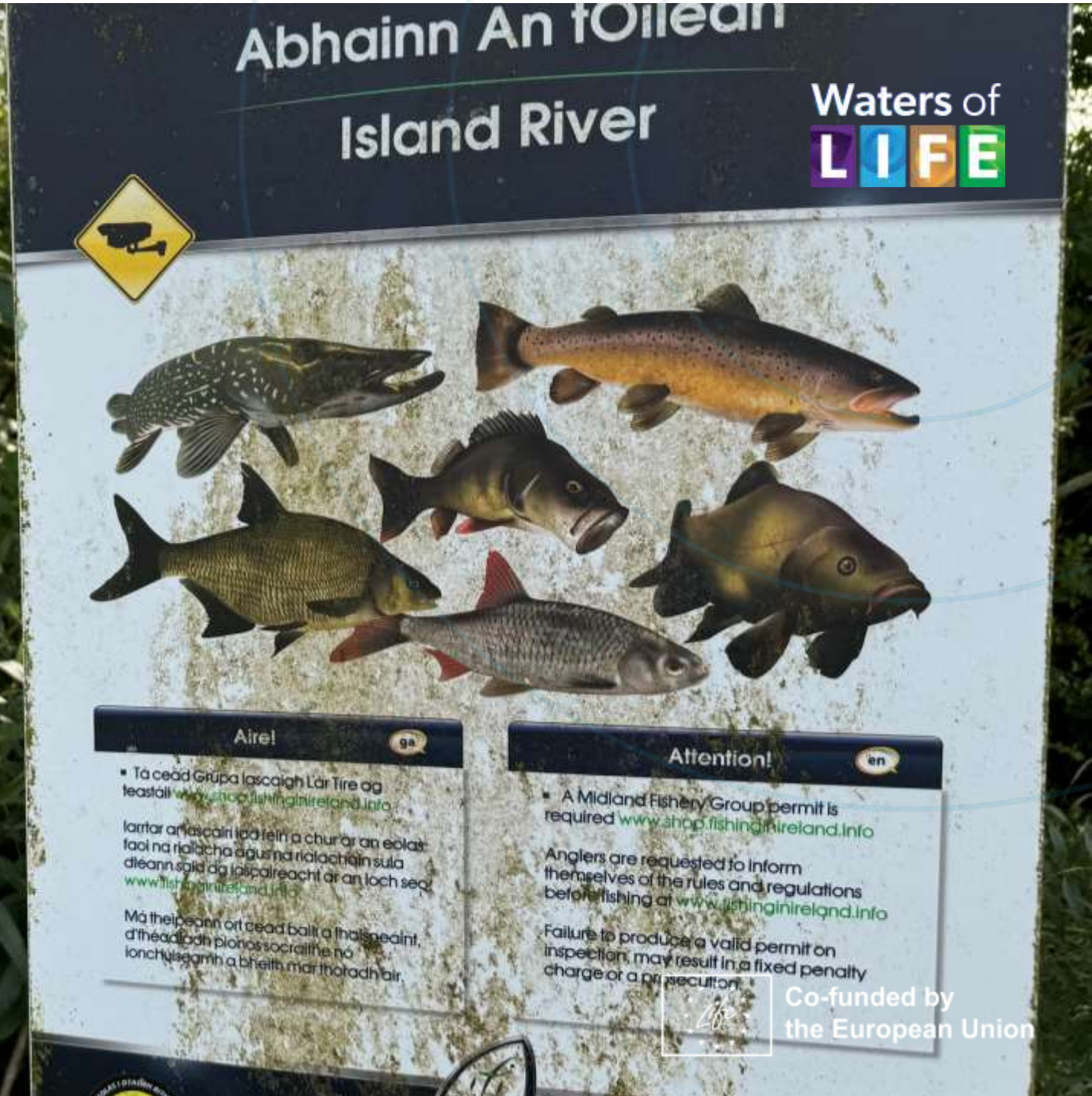
You've engaged with this project in a big way

We believe there are win-win solutions.

Something has to change.

We need to talk more one to one

LOCAL CATCHMENT ASSESSMENT



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LAWPRO's catchment scientists do fieldwork and carry out stream assessments to narrow down areas with poor water quality.

- Water samples for chemical analysis
- Examination of Invertebrates
- Assessment of river bed
- Assessment of aquatic plant life
- Walks along river bank

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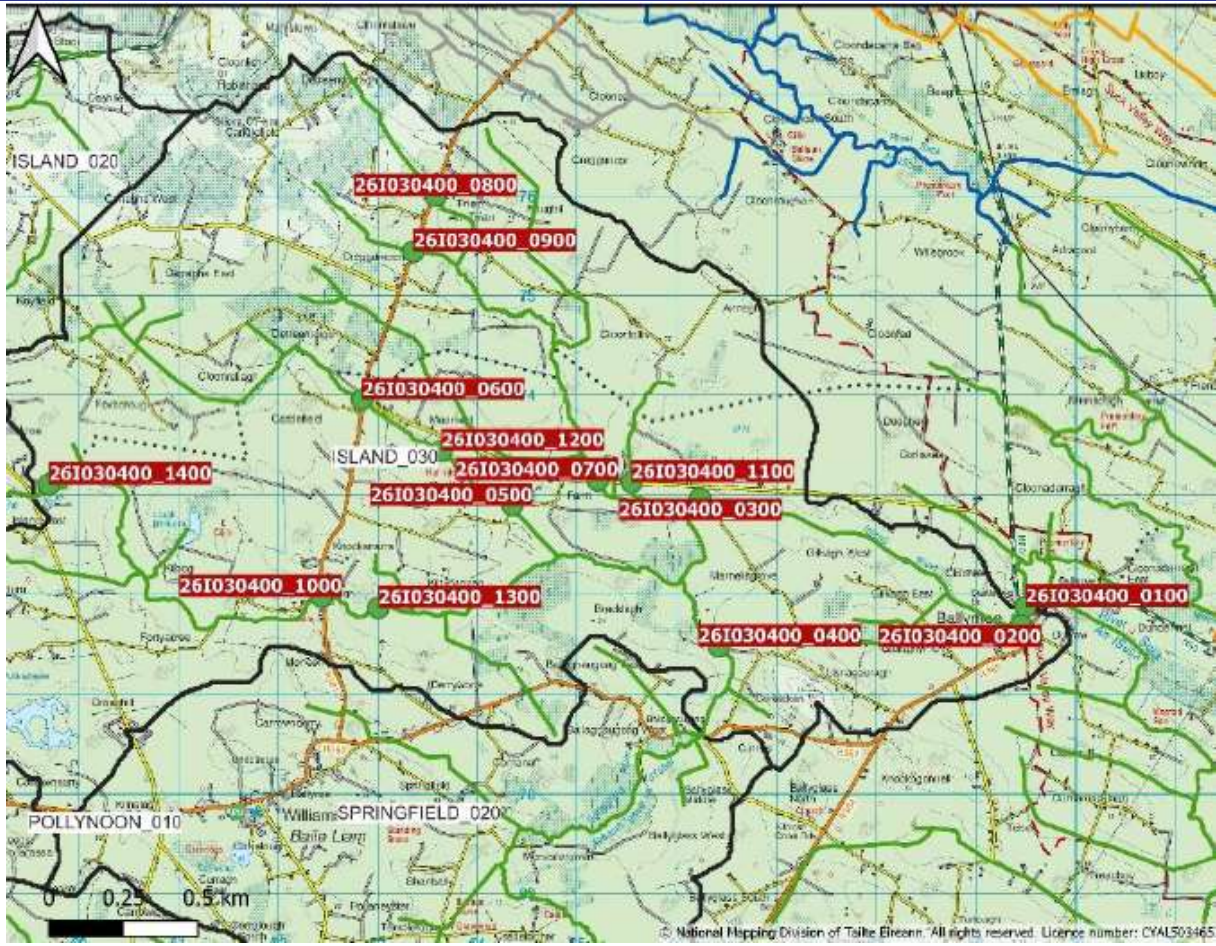
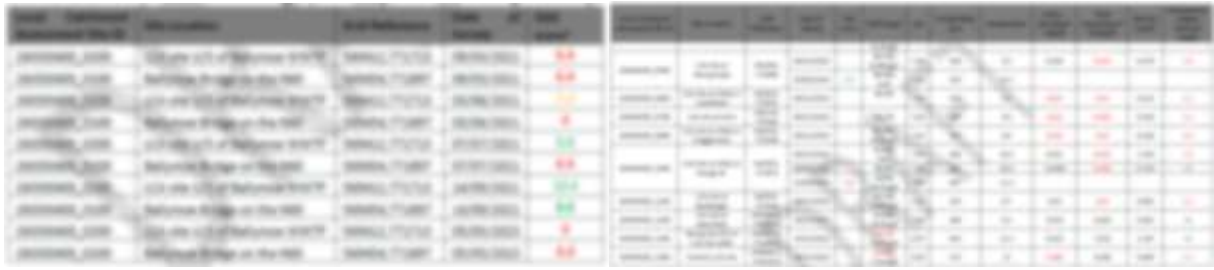
Step 1: Desk Study – Published 2023

- Look at objectives for water quality
- Assess monitoring data
- Assess pressures
- Find and interim 'story'

Step 2: Catchment Assessment – Mar 21 to May 23

- Chemistry Assessment (28 sites)
- Biology Samples (18 sites)
- Physical characteristics (catchment walk)





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STATUS 2016-2021	EPA STATUS OBJECTIVE AND RISK		
Water Body	Ecological Status of Water Quality	Water Quality Objective	Is it at risk of not meeting its objective?
Island_10	Moderate	Restore to good	At risk
Island_20	Good	Protect	Not at risk
Island_30	Good	Restore to high	At risk
Springfield_10	Good	Protect	Not at risk
Springfield_20	Good	Protect	More assessment needed
Pollynoon_10	Good	Protect	More assessment needed

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING ISSUES

Where?	What?	How?
Island_10	Poor Habitat Quality	The habitat of a river provides the living space of fish, other animals and plants.
Island_20		
Island_30		Vegetation on river banks is also an important part of the river's habitat.
Springfield_10		The variety and quality of these habitats, such as clean gravels, pools, trees and logs influences what can live in the river.
Springfield_20		
Pollynoon_10		Certain activities can cause habitat loss.

GOOD HABITAT EXAMPLE

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING ISSUES

Where?	What?	How?
Island_10	Channelisation	Channelisation is the digging out and straightening of rivers. It makes naturally formed rivers look land behave more like man-made channels. This takes away the habitat that fish and animals depend on for food and reproduction.
Island_20		
Island_30		
Springfield_10		
Springfield_20		
Pollynoon_10		

EXAMPLES OF CHANELLISATION

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

Where?	What?	How?
Island_10	Land Drainage	Drainage channels take water from the land and increase the volume of water and fine sediment flowing into local rivers.
Island_20		Increased volume can change the flow and form of rivers.
Island_30		This can erode river banks and clog riverbegs with fine sediment, making the habitat unsuitable for fish and other animals.
Springfield_10		

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

Where?	What?	How?
Island_10	Agriculture	Agriculture refers to a broad range of farming activities and land use. Certain activities can pose a higher risk to river quality. These include inappropriate fertiliser use, drainage works, land clearance, and livestock access to rivers.
Island_30		
Springfield_10		
Springfield_20		
Pollynoon_10		

LAND DRAINAGE IN THE ISLANDS SUB-CATCHMENT

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

Where?	What?	How?
Island_20	Forestry	Forestry works, such as planting or felling, can increase soil erosion and the amount of fine sediment and nutrients entering rivers.
Island_30		Water channels running directly into rivers from commercially forested areas can carry excess fine sediment and nutrients.

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LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

Where?	What?	How?
Island_30	Urban waste water	Poorly treated human waste in rivers adds nutrients and organic matter. They can cause a reduction in oxygen levels, making it hard for fish or other animals to survive.

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PILOT AGRI-ENVIRONMENT PROGRAMME

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Results Based Payment Scheme:

- Results based payments (Scoring Habitats)
- Supporting Actions
- General Actions
- Landscape measures

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General Actions:

- Run off risk assessment (all farms)
- Nutrient Management Measures (optional)
- Mob Grazing (trial plots)

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Riverside Habitat Scorecard (on improved grassland)

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Farmer ID:	Surveyor:	**Total Score** *(A+B+C)* **/100**
Plot number:	Survey date:	

Grassland stocking rate: <170 kg N/ha ☐ >170 kg N/ha ☐

Soil type: Mineral soil ☐ Peat soil ☐

River flow: Low ☐ Normal ☐ Above normal ☐

A Habitat structural integrity

Total Score A *(sum of A2 to A6)*: **/70**

A1-A What **proportion** (%) of the riparian buffer zone length is stock-proof fenced? %

A1-B What is the **average width** of the (stock-proof) fenced riparian buffer zone identified in A1-A?
Assess from top of riverbank or water's edge to fence line (see guidance).
Non-native invasive species to be excluded from assessment. (m)

A2 What is the **complexity** of the vegetation in the fenced buffer zone identified in A1?
Non-native invasive species to be excluded from assessment.
Proportions to sum to 100.
For areas comprised of natural rocky outcrop in the fenced buffer zone identified in A1, then assign a score of 20.

	A = % of area	B = Score	AxB/100
Poor: Bare – such as earth, gravel or concrete.		-20	
Moderate: Uniform – predominantly grasses and rank vegetation.		0	
Good: Simple – three vegetation types: (i) short/creeping herbs or grasses; (ii) tall herbs/grasses/rushes/sedges/ferns; (iii) scrub or shrubs; or (iv) trees/saplings.		15	
Very good: Complex – four or more vegetation types: see above.		30	
		Total score:	

B Hydrological integrity

Total Score B *(sum of B1 to B3)*: **/30**

B1 What is the extent of any **surface artificial drainage** features within the riverside plot?
Assess the WORST 20 m of drain within the riverside plot.

Recently cleared/created: Drains have been recently cleared OR created flowing directly into natural watercourse.	-30
Free flowing: Drains are unvegetated AND/OR free flowing and follow direct pathway to natural watercourse.	-15
Reduced flow: Drain are partly blocked and vegetated AND/OR pathway to watercourse is impeded.	0
Naturalised: All drains are fully blocked AND/OR vegetated. Drains with gravel/cobble substrate and stable vegetated banks.	10
No drainage: No artificial surface drainage within riverside habitat.	20

B2 To what extent are there any **subsurface drainage** features within the plot?

Present and unmitigated	-30
Present but mitigated	-10
Absent	0

B3 Riverside soil **denitrification** potential? *Assess the 20 m from top of riverbank or water's edge (see guidance).*

Low: Riverside soils dry/firm underfoot. No evidence that the soil is saturated for all/part of the year.	0
Medium: Water-logged (surface moist/fluid underfoot) riverside soils occasionally observed. Evidence that the soil is saturated for all/part of the year.	5
High: Water-logged (surface moist/fluid underfoot) riverside soils frequently observed. Evidence that the soil is saturated for all/part of the year.	10

C Threats & pressures

Total Score C *(sum of C1 to C2)*: --

C1 Is there any evidence of **damaging activities** to the riverside habitat? *(tick if present)*
Assess the 20 m from top of riverbank or water's edge (see guidance).

High: Damage occurring across a large area (≥21%) or of a serious nature if confined.	-30
Moderate: Damage occurring across a moderate area (≥6-20%) or of a moderate nature if confined.	-20
Low: Damage occurring across a small area (≤5%) or of a minor nature if confined.	-10
None: No damaging activities.	0

Damaging activities:
(tick relevant and describe in comments)
☐ Inappropriate herbicide use
☐ Inappropriate pesticide use
☐ Dumping/rubbish
☐ Removal of mature scrub/trees
☐ Flailing/cutting of riverside vegetation
☐ Burning
☐ Other *(describe in comments)*

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1. Riverside Habitat on Improved Grassland

Applies to a 20m strip adjacent to mapped rivers

- Only applies where there is no other semi-natural habitat
- Payment only on scores of 4/10 or higher
- 10/10 score is €2000/ha

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2. Semi-Natural Grassland

3. Low input grassland on peat

4. Peatland

5. Woodland and scrub

- 10/10 score is €400/ha (same as ACRES CP)
- Payment structures incentivises 8/10 or higher to ensure a significant contribution to water quality
- Riverside bonus payment of €3.20/m for 10/10 score on plot

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Runoff Risk Assessment:

- Farm walk with advisor and farmer.
- The farmer is paid for his cooperation
- Advisor recommends voluntary actions the farmer can do to improve water quality on their farm.

SOURCE PATHWAY RECEPTOR MODEL

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SOURCE

Sediment
Nutrients
Pesticides
Water quantity

PATHWAY

Drains
Overland flow
Well drained land

RECEPTOR

Rivers
Streams
Lakes
Groundwater

35 SUPPORTING ACTIONS

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- Bank stabilisation - Soft engineering. Design by project team in consultation with IFI
- Bespoke Measures
- Boundary remediation on flowpaths, hedge rows etc
- Bunded Drain
- Check (leaky) dams
- Contractor Mobilisation Fee - Excavator
- Control of Invasive Species
- Cross drain
- Culverts
- Earth bund
- Fencing for livestock exclusion and delineate riparian zones.
- Gateway Remediation (closing of gap/relocation, water crossing retro fit)
- Hedgerow Establishment (Cross Slope) without earthen mound
- Hedgerow Establishment (Cross Slope) on Low Earthen Mound
- Hydraulic ram pump
- In ditch wetland
- Livestock footbridge (natural watercourse)
- Pasture Pumps
- Peat / plastic dams
- Rainwater Catchers Bespoke
- River crossing relocation Bespoke
- Roadway Sediment Traps
- Sediment trap
- Small Scale Wetland Pond
- Solar Powered Electric Fencer
- Solar Pumps
- Spatially Targeted Buffers
- Swale
- Targeted Field Margin linner (Cross Slope)
- Tree Planting non riverside
- Tree planting riverside
- Water Bars
- Water trough
- Watercourse Crossing/Bridges
- Willow Beds

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" The Right Measure In The Right Place"

OPTIONAL SUPPORTING ACTIONS: RIGHT MEASURE IN THE RIGHT PLACE

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QUESTIONS YOU HAVE ASKED

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When does it run?

Early 2025 to March 2028.

Do you need an active herd number?

Yes & 2024 BISS application.

How do I sign up?

Fill out an Expression of Interest form. We'll be in touch. No guarantee of entry.

You can also go to watersoflife.ie/eoi

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Who will be assessing my farm?

You should nominate your current advisor. All advisors will need to be approved by Waters of LIFE.

Is there advisory costs?

No, all advisory costs are covered by the project.

Will you be assessing forestry?

Yes, where applicable.

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How much money can I expect to get?

The total pot for practical works including the pilot agri-environmental programme is about €9,000,0000 across all five catchments.

There is no set budget for each catchment. It is dependent on uptake.

Farmer Payments are mostly dependant on Habitat Scoring.

Is there a minimum payment?

Yes.

Farmer Training: (number of days tbd) €156 per training session

Run-off Risk Assessment walk with farm advisor: €250

After that, there is no minimum or maximum payment on scored land.

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Do I have to fence off 20m of my land along by the river?

No. Only if you want to.

Your land will be scored and paid on the area fenced. Semi Natural Habitat does not need river fenced.

A farmer can fence off as little or as much as they like and get paid per hectare depending on score.

E.g. if you fence off 10m, you'll be paid on that area according to your score.

What if I don't have any river frontage?

You can still apply.

Anyone with farm land within the demonstration sub-catchment can apply.

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I'm in another scheme (e.g. ACRES or Organics). Can I still apply?

Yes.

There are no double payments but we can pay based on results for water quality.

e.g. if you have a plot scored as semi-natural habitat under ACRES, we can still apply a bonus payment per metre river frontage on EPA river lines.

Do I have to take up the scheme?

Participation in the scheme is completely voluntary.

It is also fully private and confidential.

The Waters of LIFE project have no enforcement role.

Waters of LIFE
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THANK YOU