



Co-funded by  
the European Union

# Public Meeting

## Graney Demonstration Sub-Catchment

04/09/24



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.

- 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)

The Graney's Blue Dots are: Bleach\_020, Corra\_020 and Graney \_030

## Demonstration Sub-Catchments

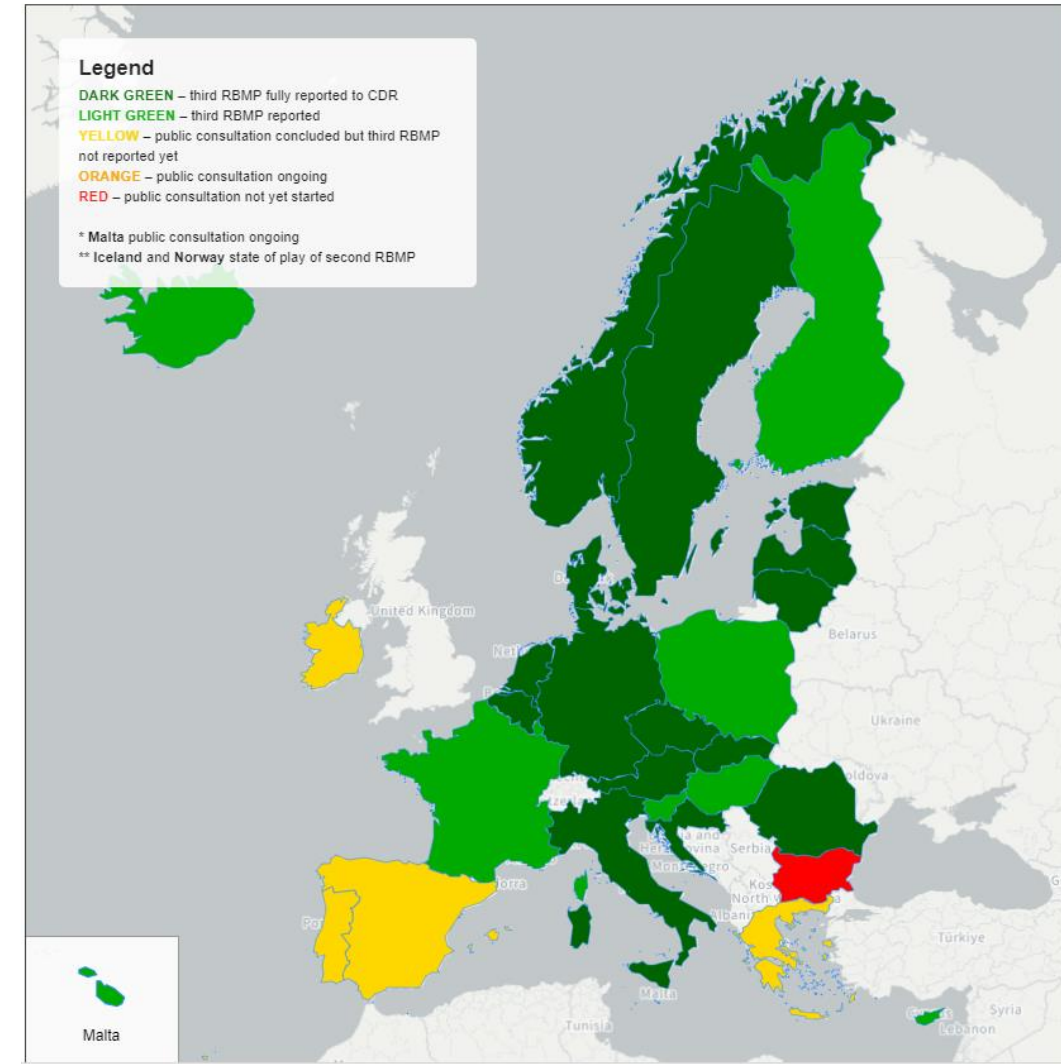
Avonmore	Wicklow
Graney	Clare / Galway
Islands	Roscommon / Galway
Awbeg	Cork
Shournagh	Cork
Sheen <small>(Control)</small>	Kerry





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.



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

We must:

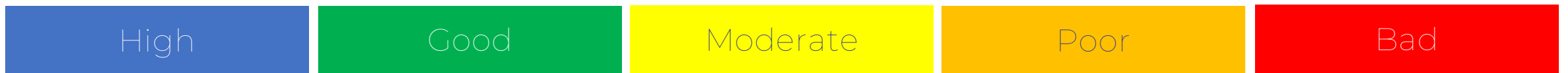
- Protect 'good' status water bodies and all 'high' status water bodies
- Restore all bad 'poor' and 'moderate' water quality to at least 'good'



## 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.

### European Union Water Framework Directive



### River water quality in Ireland 2018 to 2021 (Source: EPA)



## 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?



Would you like to know more?

Come to a community science event

Experience:

Your local river's ecology

Link between ecology & water quality

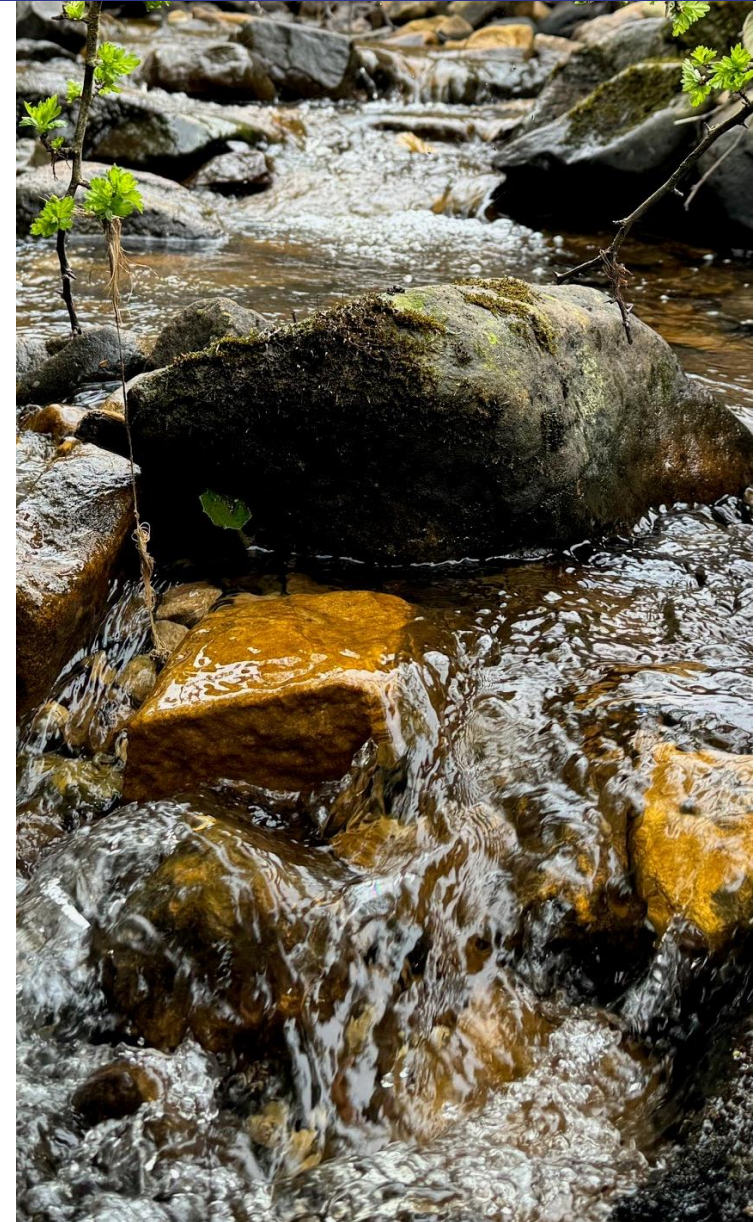
How we test water quality

Say 'yes' on the attendance sheet.



Sean Farrell

- 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 .





Media Headline:  
*“Lough Graney  
selected under  
€20m scheme”*

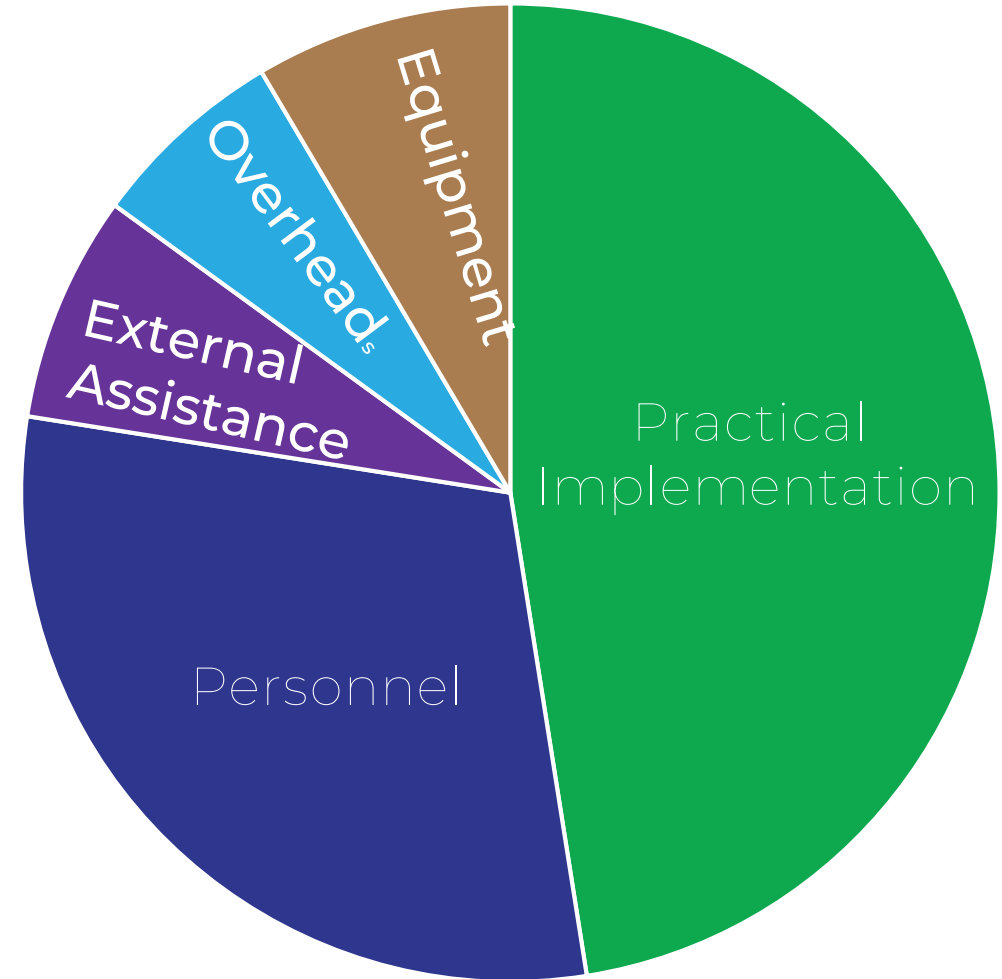
Clare To Benefit From €20m Project To Protect Rivers



North East Clare's Lough Graney will benefit from a €20 million initiative aimed at protecting Ireland's most pristine river catchments.

Actual Story:

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



# ABOUT THE PROJECT: HOW WE ARE DIFFERENT

	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	✓	✓	✓	✓	✓



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:



An Roinn Tithíochta,  
Rialtais Áitiúil agus Oidhreacht  
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



AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

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.

For **communities**, we engage with:

- Public Meetings
- Open door policy
- Community Science Events
- Schools
- Working with local interest groups



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

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





## 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







“It’s god’s own country around here.”

“An incredibly precious habitat.”

“People are moved by its wilderness.”

We’ve seen Otters. We’ve seen  
Kingfisher...

“We need new ways of making water  
quality part of farming sustainability.”

“There are still places around here like  
they always were. That’s a rare thing.”





“Peat came down the lake like an oil spill.”

“The trout are gone and they’ll never come back.”

“I remember a helicopter spraying the forestry at the TV mast. After a bad rain, the water went green. You could pull dead fish out with a rake.”

“There’s a bed of concrete in Bleach river bed to trucks to drive over.”

“It’s gone very shallow now compared to the past.”

“Lough Atorick is brown. You’ve to wash it off yourself after a swim.”

“My father could walk straight down to Flagmount. With the forestry, those days are gone.”

“If the Graney gets cleared, we will lose precious habitats and species. Not many rivers like this remain in Ireland.”

“You can see the change through the place names. Dromindoora. That was a ridge with a black oak-wood. That’s native woodland. Maghera means plain in Irish. There’s no plain up there now.”

*“Is forestry an issue?”*

*“Are you tackling the forestry instead of worrying about the farmers?”*

Yes. Forestry is an issue. It's the reason the area was chosen.

We'll work with public and private farmers to find ways of minimising the impact of forestry operations on water quality.



*“Could we look at some kind of conference on how to sustain income in rural communities?”*

Yes.

Knowledge exchange is a big focus for us.

It will be formal and informal and we're open to organising events that are relevant for our work and of interest to the community.

*“Do we have a good ecologist for the Graney?”*

We will.

We have received some excellent applications and will be interviewing for the position in the coming weeks.

*“Outside the farm gates, we want to get the community going including tourism. What about a walk way project?”*

Walkways along rivers, if sensitively designed and managed, can enhance the river environment and create a protective buffer adjacent to the river.

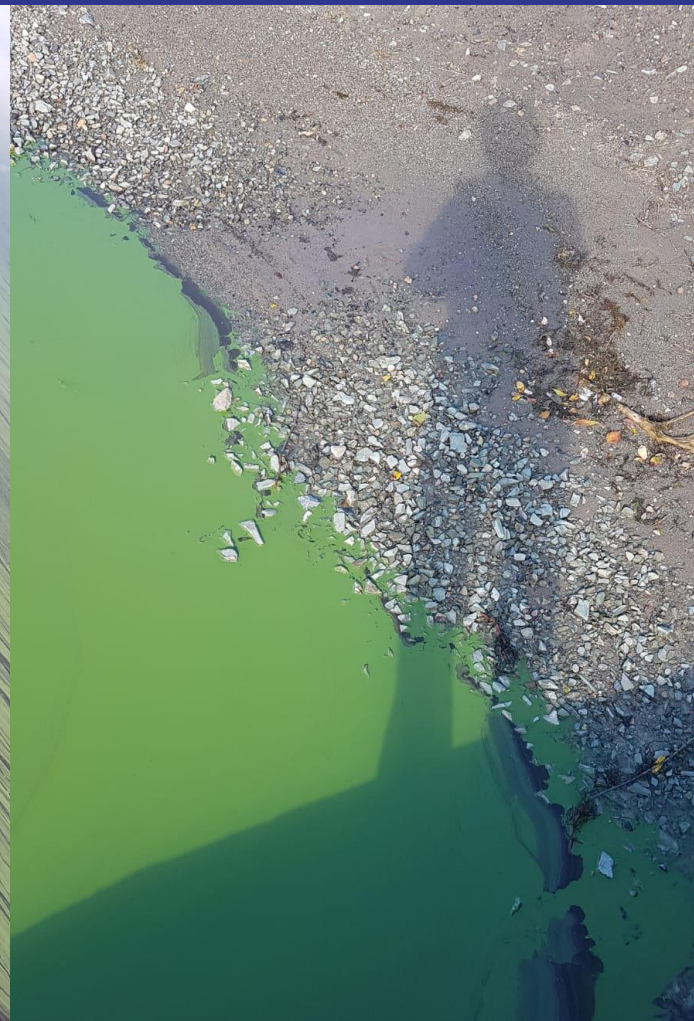
However, it is very important that in designing such amenities, existing valuable habitats are protected and not destroyed to make way for the walkway.

*“If we see something – can we send it on to a number?”*

Our catchment ecologist will be available to manage this.

In the mean time, email [info@watersoflife.ie](mailto:info@watersoflife.ie)





*"You couldn't swim in Lough Graney in September. It's such a disappointment. 2022 was the worst I ever saw with the algae."*

LOUGH GRANEY

Image Credit: Sheila Bermingham, September 2022



*“Can you ask Clare County Council if they’re testing for Bacteria in Lough Graney?”* Yes. We got an update from Clare Co. Co. Executive Scientist.

*“Lough Graney is not a designated bathing water or other monitored body.”*

Clare CoCo also say there’s a public process to help with identifying ‘bathing water sites’ and they’re welcoming submissions until September 26<sup>th</sup>.

*“All those proposed are assessed against EPA guidance in a framework to assist Local Authorities in the assessment of submissions for the identification of new bathing waters.”*

Local authorities are required under the Bathing Waters Directive and the Bathing Water Quality Regulations 2008 (SI No 79 of 2008) to identify bathing waters on an annual basis. The Directive requires that water quality at all designated bathing waters meets stringent microbiological standards in order to protect the health of people who choose to bathe there.

To help with this process, Clare County Council are asking people who swim at beaches, lakes and rivers to tell them if they think they should maintain existing designated bathing waters designations or give a new official bathing area designation to areas that are commonly used for swimming, but not identified at the moment.

If you are a regular swimmer and want to help your Council decide which bathing areas should be classified as such, it might be helpful to consider the following:

- How your swimming area has been used up to now;
- How many people use the site;
- What facilities exist at the site and how accessible it is;
- Any safety issues.

If you wish to propose your favourite beach/river etc as a new bathing water site or comment on an existing site please us by email at [enviroff@clarecoco.ie](mailto:enviroff@clarecoco.ie)

A. Farmers are proud of well-maintained land. They want it to look that way now and in the future.

“I inherited my land. I don’t want it looking neglected.”

“For the next generation it looks like abandonment of land - making it worthless.”

Very understandable. We believe attitudes to nature based solutions are changing and small changes can make a big difference without impacting how a farm is run.

We agree that abandonment of land is a big issue. Some of our most valuable habitats, such as species rich grassland, depend on farming to exist.



## B. Sustainable Income Is Key

“Community are all for it. But if you’re being asked to do a job, you should get paid for it.” Agreed.

“If you want it done, it will have to be paid for. That’s our message back to Government.” Agreed.

## C. Farmers want practical measures that work.

“The measures should be practical things that get people to change behaviour.”

“I can only change what comes off my land. I can only change what’s in front of me.”

“We’re all on the same hymn sheet here – it’s about the how.”

## D. Farmers want clarity and can't afford to be let down.

“Farmers want clarity and accuracy. If you do x job – you get y €.”

“We have [Non-Productive Investments] NPIs – we're a year in and we're frustrated by that.”

“Part-time farmers have to focus their time and effort on whatever generates the most return.”

“Send up the line about tax free payments – most farmers here are working as well.”

# LOCAL CATCHMENT ASSESSMENT





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

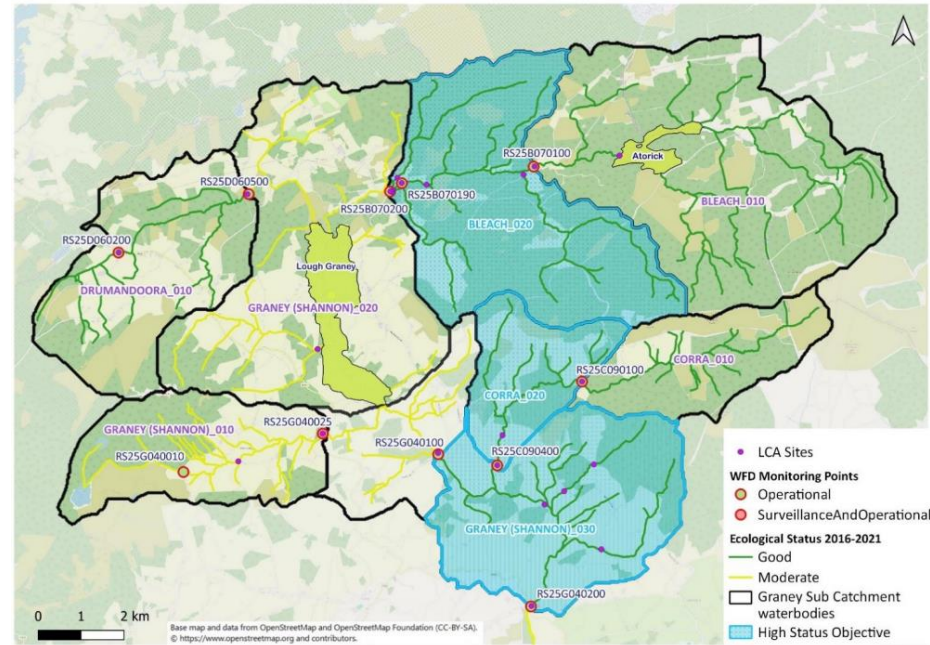
- Water samples for chemical analysis
- Examination of Invertebrates
- Assessment of river bed
- Assessment of aquatic plant life
- Walks along river bank

## Step 1: Desk Study – Published May 2023

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

## Step 2: Catchment Assessment

- Chemistry (67 samples)
  - Aug '22 to Sept '23
- Small Stream Impact Surveys (19 sites)
  - Jun to Aug '23
- Q Survey (16 sites)
  - Sep to Dec '22

[illegible]





Forestry drains with connections to Bleach\_010. November 2022





Corra\_020, Gortaderry Bridge.  
Dead algae, diatomaceous growth, Vaucheria  
August 2022





- Bank erosion
- Animal access
- No fencing
- Lacks riparian vegetation.

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?
Bleach_10	Good	Protect	Not At Risk
Lough Atorick	Moderate	Restore to Good	More assessment needed
Bleach_20	Good	Restore to High	At Risk
Drumandoora_10	Good	Protect	Not At Risk
Graney (Shannon)_10	Moderate	Restore to Good	At Risk
Graney (Shannon)_20	Moderate	Restore to Good	At Risk
Lough Graney	Moderate	Restore to Good	At Risk
Graney (Shannon)_30	Good	Restore to High	At Risk
Corra_10	Good	Protect	Not At Risk
Corra_20	Good	Restore to High	At Risk

## LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING ISSUES

What?	How?
Too much fine sediment	<p>Fine sediment occurs in nature, but too much of it in the wrong place can suffocate a river.</p> <p>It clogs up stony riverbeds and stops fish and other animals from feeding and reproducing.</p> <p>Fine sediment can also carry nutrients that cause eutrophication.</p>



## LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

Where?	What?	How?
Bleach_10 Bleach_20 Graney (Shannon)_10 Graney (Shannon)_20 Graney (Shannon)_30 Corra_20	Forestry	Forestry works like planting or felling can increase soil erosion and the amount of fine sediment and nutrients in water.  Water channels running directly from commercially forested areas can carry fine sediment and nutrients into rivers.  Water channels from peaty areas can also cause higher acidity levels.

## LAWPRO'S LOCAL CATCHMENT ASSESSMENT FOUND THE FOLLOWING PRESSURES

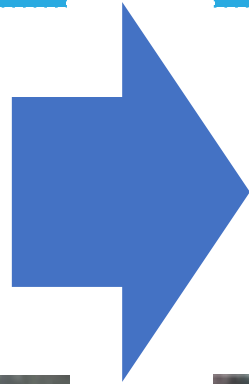
Where?	What?	How?
Graney (Shannon)_10	Barriers	<p>A man-made barrier across a river channel holds back the flow of water.</p> <p>It changes the river's habitat and can stop fish from moving up and downstream.</p>

# CATCHMENT MANAGEMENT APPROACH



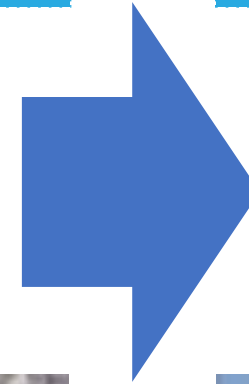
## SOURCE

Sediment  
Nutrients  
Pesticides  
Water quantity



## PATHWAY

Drains  
Overland flow  
Well drained  
land



## RECEPTOR

Rivers  
Streams  
Lakes  
Groundwater



# SOLUTIONS





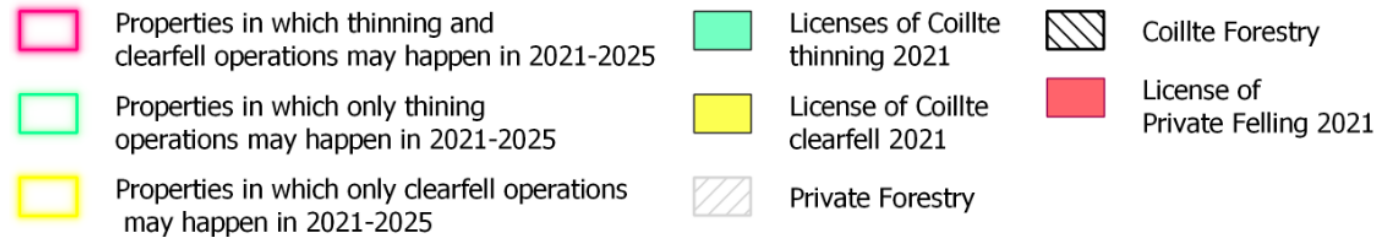
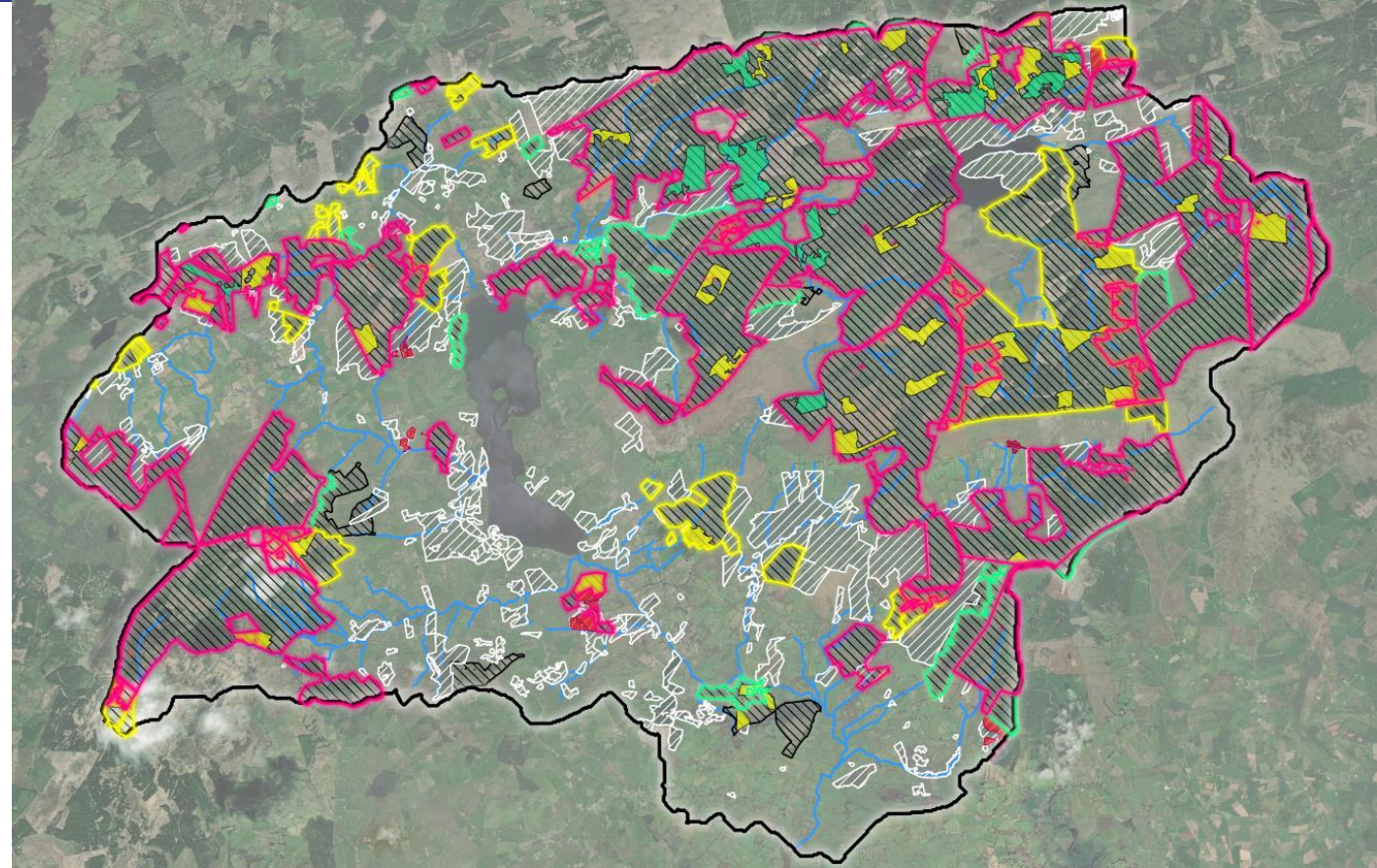
Forestry is the biggest pressure so it's our biggest focus.

- A desk study assigns risk to each water body
- We 'ground truth' the risk
- We look at opportunities to put in measures
- We work with public and private forestry owners to put measures in place

# Graney forest inventory

Coillte: 7,305 ha  
41.8% of catchment

Private: 1,942 ha  
11.2% of catchment



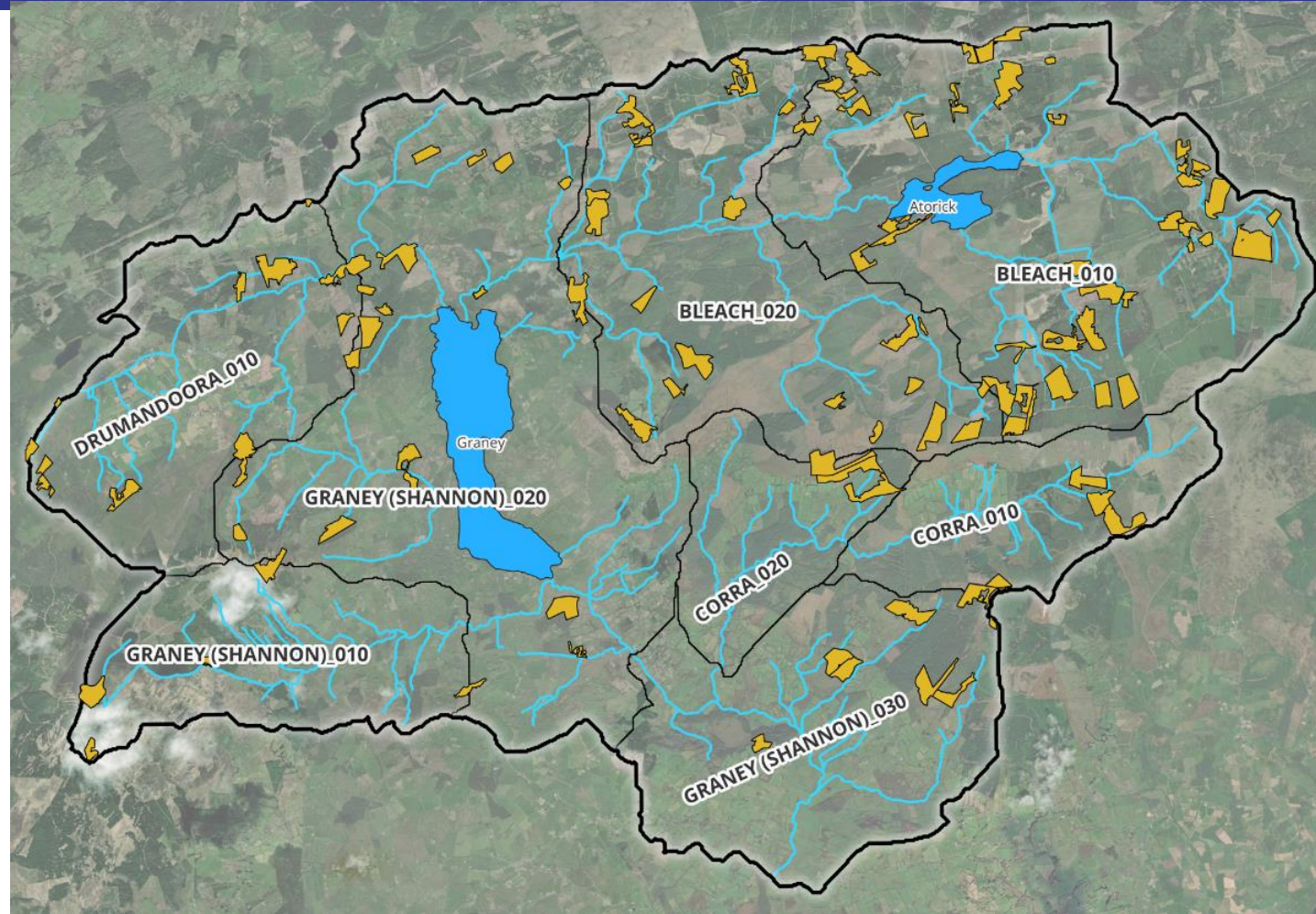


# Coillte fell and restock plan in Graney (2024–28)

Felling throughout but a high proportion in the Bleach\_010. Areas of concern = Bleach\_010 and Bleach\_020.

Graney (Shannon)\_030 has a number of areas also.

Felling area = 849 ha (11.6% of Coillte area within the catchment, and 4.9% of total catchment area).



WFD Subbasins



Lakes



River



Coillte Felling Restock Plan 2024 - 2028

# Proposed approach to prioritising areas of forestry for detailed risk assessment & interventions

Two-step process:

1. Desk-based forestry risk assessment to target areas for integrated (field-based) risk assessments
2. Integrated (field-based) risk assessment using the Source-Pathway-Receptor (S-P-R) model.

These proposed methods are based on work done by KerryLIFE

KerryLIFE is a demonstration project in the Caragh and Blackwater catchment areas to support the local communities to restore populations of freshwater pearl mussel.





# AGRI-ENVIRONMENT PROGRAMME





## Results Based Payment Scheme:

- Results based payments (Scoring Habitats)
- General Actions
- Non productive investments
- Landscape measures





## General Actions:

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





# 1: Riverside Habitat on Improved Grassland

## 2: Riverside Habitat on Tillage

- Applies to a 20m strip adjacent to rivers
- Only applies where there is no other semi-natural habitat
- Payment only on scores of 4/10 or higher
- 10/10 is €2000/ha



## 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

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







## Runoff Risk Assessment:

- Mandatory for all scheme participants
- Advisor does desk study (advisor paid by project)
- Farm walk with advisor and farmer to identify and confirm flow paths and delivery points.
- Farmer is paid for his cooperation
- Advisor recommends non-productive investments from framework of measures
- NPI proposal submitted to project

Candidate for interception-type measure(s) – e.g., spatially targeted riparian buffer, hedgerow establishment with earthen bund

Poorly draining soil type, flow paths and flow delivery points indicated = higher runoff risk of pollutants



## Mob Grazing:

- Project staff suggest plots suitable to trial pilot measure
- High density grazing for short duration > long rest period
- River sides plots
- Old permanent grass-dominated pastures
- Farmer paid per hectare per year







# NON-PRODUCTIVE INVESTMENTS



- 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

1. When does it run? Early 2025 to March 2028.
2. Do you need an active herd number? Yes.
3. How do I sign up? Fill out an Expression of Interest form. We'll be in touch.
4. Do Coillte get money from the programme? No.
5. What about private foresters? We'll look to help them through the forestry programme. We're also open to trialling solutions in specific areas where the forestry programme may not apply.

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

Yes.

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

Our riverside bonus on semi-natural habitats is over and above.

e.g. if you have a plot scored as semi-natural habitat under ACRES, we can still apply a bonus payment per metre where it bounds a river



## 7. 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. You might only know what you might expect to receive after your land is scored.

## 8. Is there a minimum payment?

Farmers would be paid for the time in training. They would also receive payment for certain mandatory elements e.g. run-off risk assessment.

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

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

No. Your land will be scored on those 20m.

After that, if it's agreed that fencing is the right measure, a farmer can fence off as little or as much as they like and get paid per hectare.

E.g. if you fence off 10m, you'll be paid on that.

If you fence off 20m and there's already a mandatory requirement for 1.5m, you'll be paid on the the 18.5m.

## 10. Do I have to take up the scheme?

Participation in the scheme is completely voluntary.

It is also fully private and confidential.

And the Waters of LIFE project have no enforcement authority.