



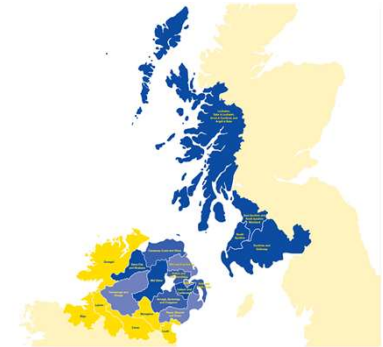
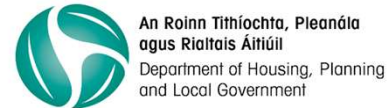
**Iascach Intíre Éireann  
Inland Fisheries Ireland**

# **The Catchment CARE project**

**Catchment Stakeholders Group Meeting  
14th October 2018**

**Dr. Maria Diaz Redondo  
Research Officer**

## A Project supported by the European Union's INTERREG VA Programme



- €13.8 million over 5 years
- EU Programme for N. Ireland, Ireland Border Region & Western Scotland
- CatchmentCARE is funded under Priority Axis 2 – **Environment**, Priority 2b – **Invest in Water Sector**, Objective 2.4 – **Improve freshwater quality in river basins**
- Match funding provided by DAERA in N. Ireland and the Department of Housing, Planning and Local Government in Ireland



## 8 Project Partners with DCC Lead Partner . . .



**Loughs Agency**



**British  
Geological Survey**  
NATURAL ENVIRONMENT RESEARCH COUNCIL










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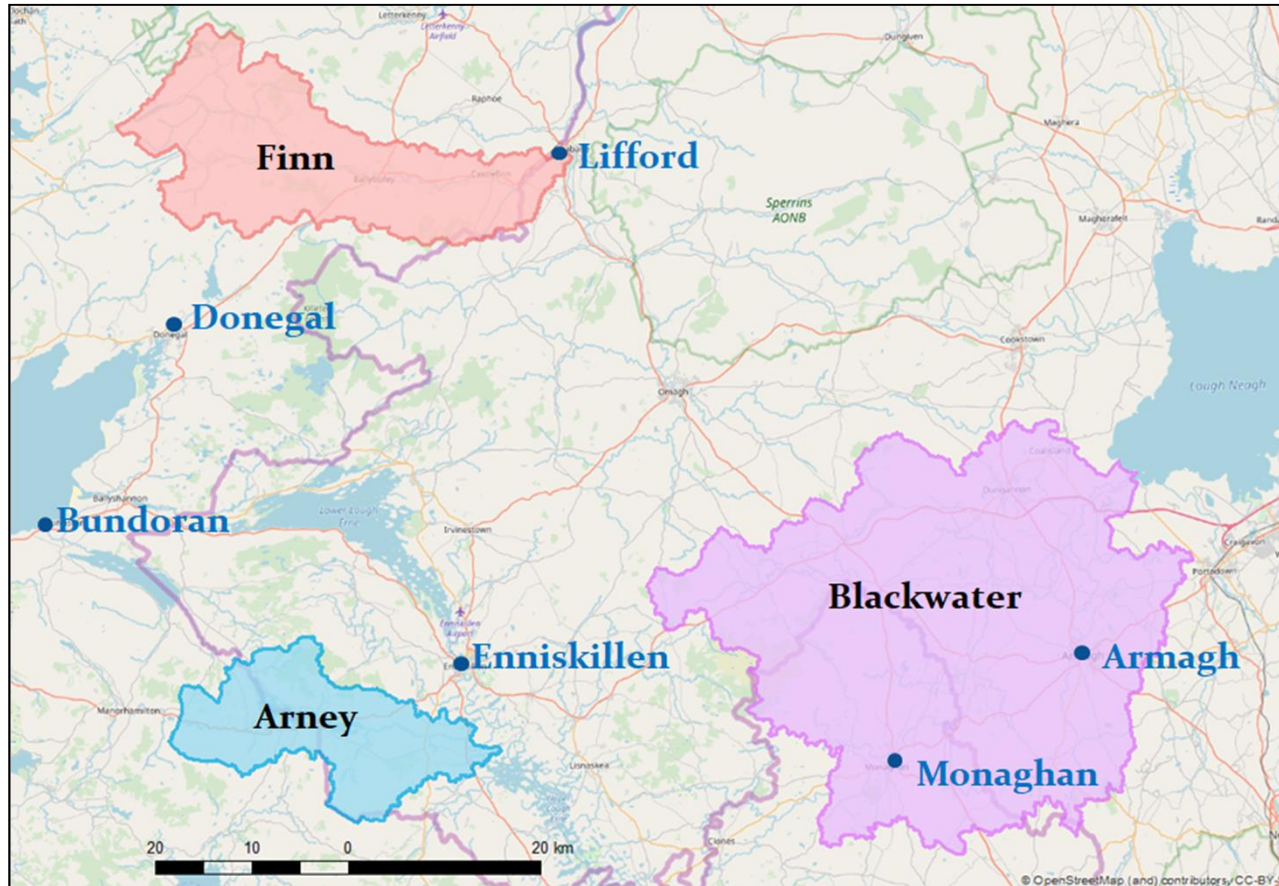
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# Project structure . .

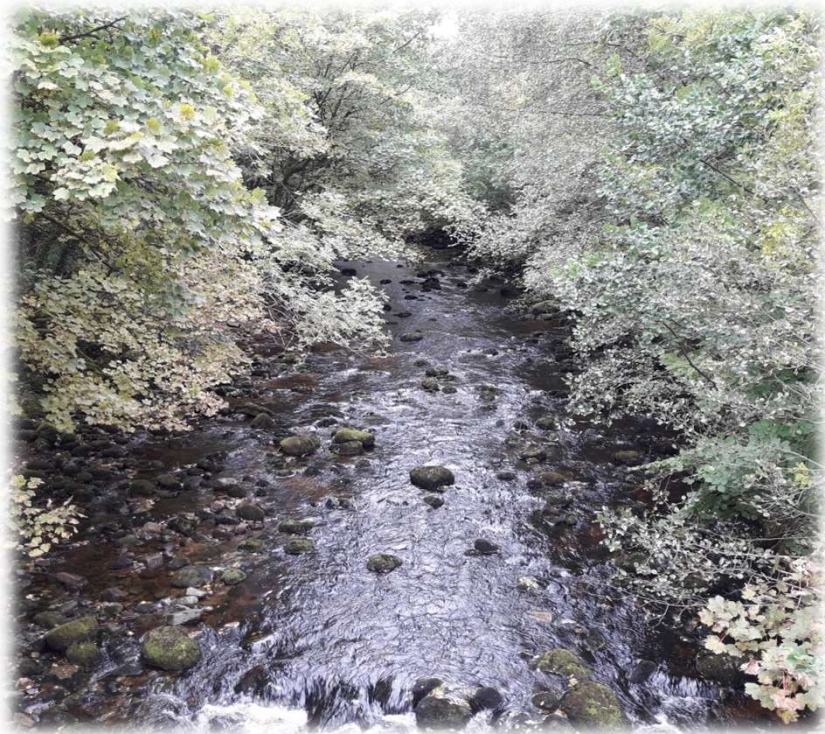
WORK PACKAGE	RESPONSIBLE PARTNER	
M – Project Management	Donegal Co Council	 Comhairle Contae Dhún na nGall Donegal County Council
T1 – Scoping & Action Targeting	Inland Fisheries Ireland	 Iascach Iníre Éireann Inland Fisheries Ireland
T2 – Water Body Actions in Catchments	Loughs Agency	 Loughs Agency
T3 – Catchment Land Use Actions	University of Ulster	 Ulster University
T4 – Groundwater	British Geological Survey	 Geological Survey Suirbhéireacht Gheolaíochta Ireland   Éireann
T5 – Project Legacy	Agri-Food & Bioscience Institute	 afbi Agri-Food and Biosciences Institute
C – Communications	Armagh City Banbridge & Craigavon BC	 Armagh City Banbridge & Craigavon Borough Council



# Project spatial scope . .



## The project will be delivered through . . .

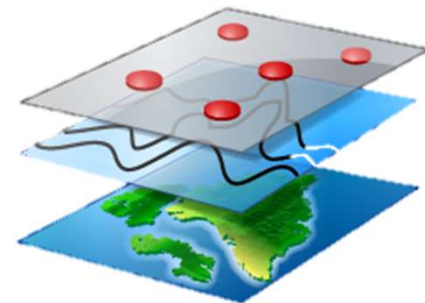


- **3 policy actions**
- **6 catchment and water body actions**
- **3** inter linked actions focused on **enhancing the capacity of stakeholders** to contribute to achieving Good Ecological Status (GES)



## . . Policy Actions

1. **Refining the current nutrient management advice** to farms through the implementation of a farm scale survey on selected farms
2. Completion of **an evaluation of the cost and feasibility** of achieving the WFD objectives in the three catchments
3. Delivery of **a scoping study** on the feasibility of establishing a willow supply chain in the border region



## . . Catchment & Water body Actions

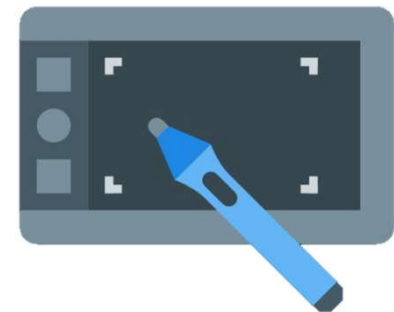
1. **€3 million** worth of hydromorphology work.
2. **Scoping studies for WWTP upgrades using willow plantations** for bioremediation of effluent
3. Addition of **P binding materials to selected lakes** to reduce the internal loading of phosphorus
4. **50 boreholes** for groundwater profiling
5. **Best practice solutions** to reduce the risk posed by chemical escapes from land use
6. **Nutrient management advice to farmers**





## .. Capacity Building Actions

1. **Incentive based scheme to support community organisations** to implement initiatives which stimulate a 'bottom up' approach to KE and capacity building between multiple stakeholders
2. Support and enhance local community development based strategies and approaches to support sustainable land use in the 3 catchments e.g. 3 **cross border catchment networks**
3. Develop and implement **a communication and engagement plan** in parallel with stakeholders and community engagement



## Aims – Post Project . .



1. Deliver **measurable impacts** on water quality;
2. Ensure the **actions** and activities are **transferable** beyond the 3 catchments
3. Contribute to a **project legacy**



# CatchmentCARE Project Legacy . .

- Knowledge exchange and capacity building with local, regional and national stakeholders
- Catchment groups to continue post project
- Catchment plans that bring added value to existing WFD plans
- Groundwater borehole network
- Developing strong links with relevant agencies, stakeholders and catchment communities



# Before we do something... lets find out the current situation!!

- Scoping and Targeting
- Find out current WFD status
- Need to bring ALL water bodies to at Least **GOOD** status
- Hydromorphology evaluation
  - Instream situation (channel condition)
  - Riparian situation (banks and bank slopes)
  - Connectivity situation (barriers to migration and sediment transport)



# Current work being undertaken by IFI and Loughs Agency:

1. **Fish surveys** – establish the current fish status in a range of locations in sub-catchments
2. **RHAT surveys** – establish the current status of the instream and riparian zones in the locations assessed for fish
3. **Barrier surveys** – establish location, nature and dimensions of barriers



# Fish surveys



# Habitat surveys - RHAT

Rivers in near-natural conditions



# Habitat surveys - RHAT

Rivers under different pressures: fencing, reinforcements...





# Habitat surveys - RHAT

**Rivers under different pressures: fords, cattle access...**



# Habitat surveys - RHAT

Rivers under different pressures:  
vegetation removal, widening,  
dredging...



Is this a river???



# Barrier assessments

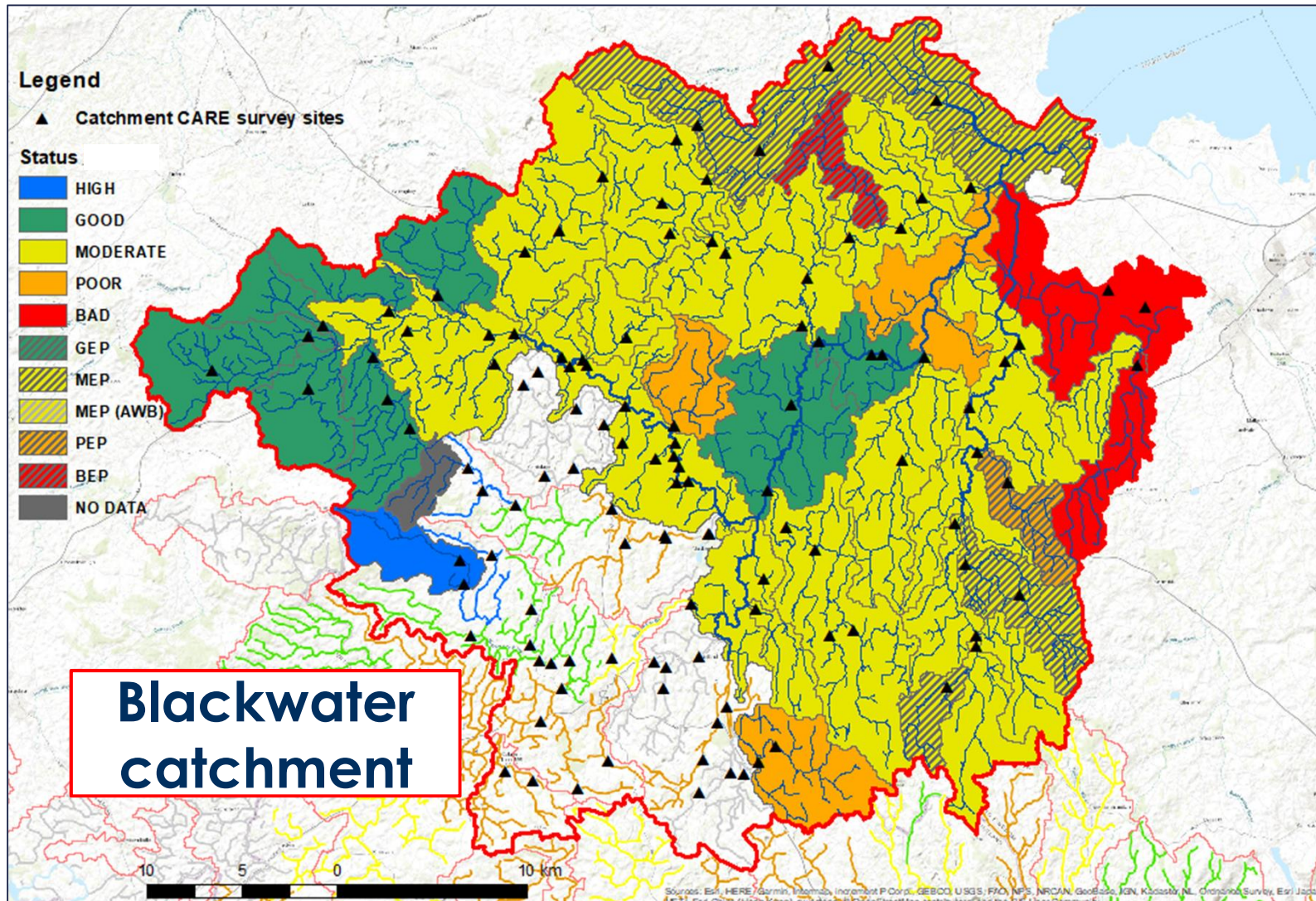


# ..more barriers



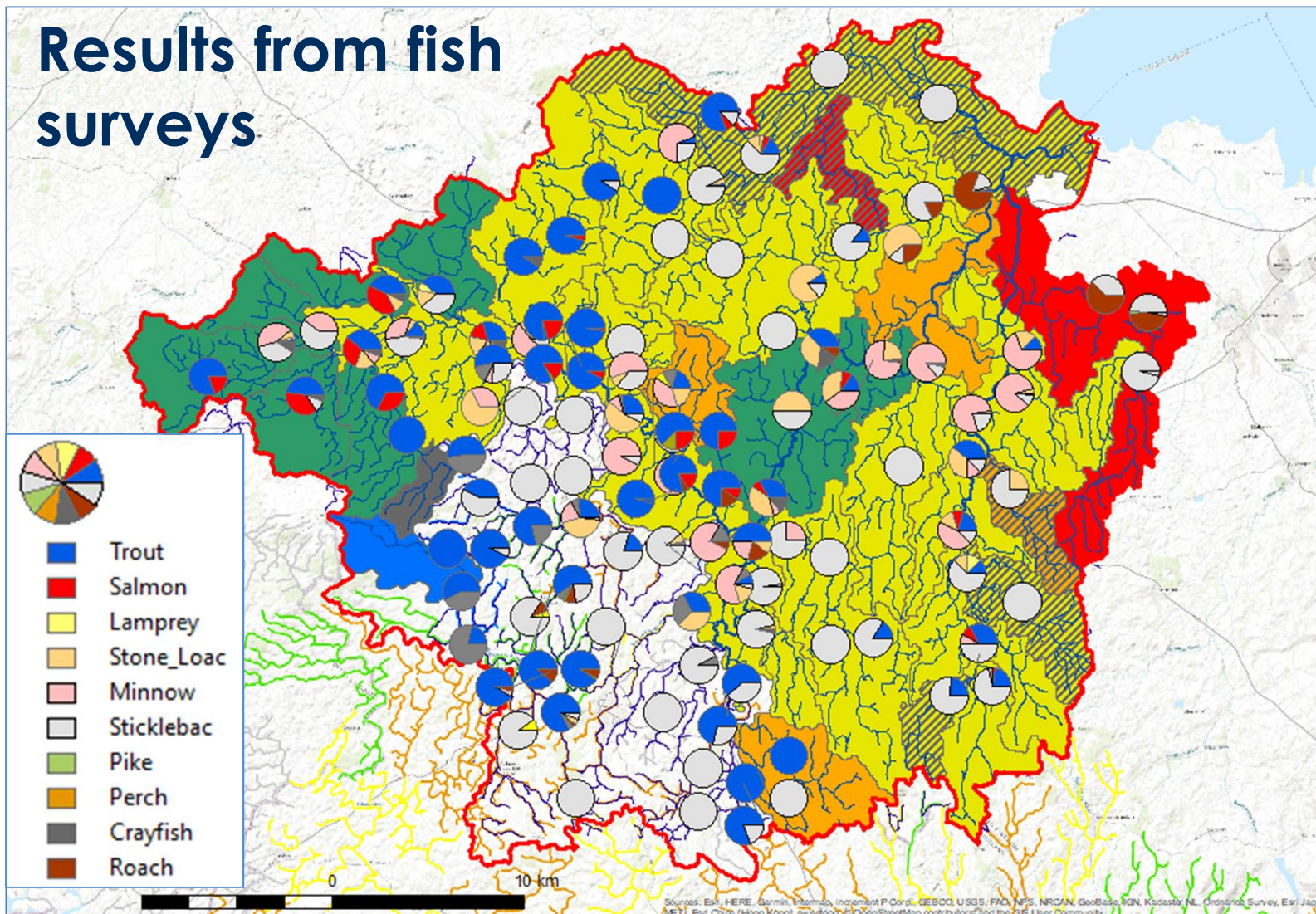
# Catchment CARE

Community Actions for Resilient Ecosystems



Iascach Iníre Éireann  
Inland Fisheries Ireland

## Results from fish surveys



## Next steps....

- Identify locations where quality can be improved to **GOOD**
- Identify the measures that can bring this about
- What will any measure cost ....**€€€€€€.....££££££**
- Obtaining permissions, agreements, licences etc.
- Matrix of best bang-for-buck!
- **DECIDE.....**



# Simple possible measures

- Fencing
- Pasture pumps/mains water
- Soft bank protection
- Tree planting
- Gates
- Barrier easement/removal
- ...





# Fencing



# Off-line drinkers and fencing



# Moving from this....



....to this



# Riparian zone creation and protection



# Tree planting



# River bank protection



**Willow spilling**



**Cribwall**



# In-channel features



**Large woody debris**





# Easement / removal measures at barriers

Low bed in culvert allows water depth and retro-fit with stony material



Breaching of derelict weir to allow fish passage and natural flow of the river





## Barrier removal

- Solution fits with **WFD**
- Removes ponding upstream
- Re-connects river and allows natural flow pattern
- No fish passage issues!!!!



**THANKS FOR YOUR ATTENTION!**

