



Connecting Communities,  
Valuing Our Waters & Wildlife

# Nature-based Solutions for Flood Reduction

By Trish Murphy

A presentation for The Rivers Trust All Ireland Conference 2023

Mullingar Park Hotel – 4<sup>th</sup> March 2023

# Inishowen Flood

irishtimes.com/news/ireland/irish-news/flooding-from-derry-to-donegal-1.3196902

## Flooding from Derry to Donegal

Rainfall in excess of 30mm left a trail of destruction in the northwest.

Thu 24 Aug 2017



A tractor that fell into a river after a road collapsed in Iskaheen, Co Donegal. Photograph: Niall Carson/PA Wire



irishtimes.com/news/ireland/irish-news/flooding-from-derry-to-donegal-1.3196902

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Clean up operations underway at Cockhill Bridge in Bunrana, Co Donegal, after heavy rain. Photograph: Niall Carson/PA Wire



**"We need the Office of Public Works, which has the responsibility in this area, to step up to the plate in terms of taking charge of our rivers"**

**Councillor ALBERT DOHERTY**

An Taoiseach Leo Varadkar and Minister of State Joe McHugh surveying some of the destruction along the Cam River six months ago. However many locals say that politicians haven't followed up on initial pledges of support.

Diggers at work in the Cam River in the days following the flood. There have since been calls for the OPW to do much more, with fears that another serious flood could occur.

Fears that catastrophic flooding could recur; many businesses still struggling  
Six months on from the flood...

22 August 2017

# Natural Flood Management

After flood of 2017, IRT began looking into natural flood management. 3 phase project:

## 1. Awareness raising

Feb 2018 – ran Slow the Flow event to introduce concept to community. Funded by LAWPRO/OPW

Sep-Oct 2018 – awareness events covering measures for river restoration and woodlands for water. Funded by LAWPRO

## 2. Scoping Project

Nov 2018 – began collaboration with Trinity College to look at potential for NFM in Inishowen. OPW funded

March 2020-July 2020 - Community Consultations to gauge interest

## 3. Implementation

Dec 2020 – Secured funds from multiple agencies to implement measures (EU LEADER, OPW, LAWPRO, Donegal CoCo)

# Scoping Study by Trinity College

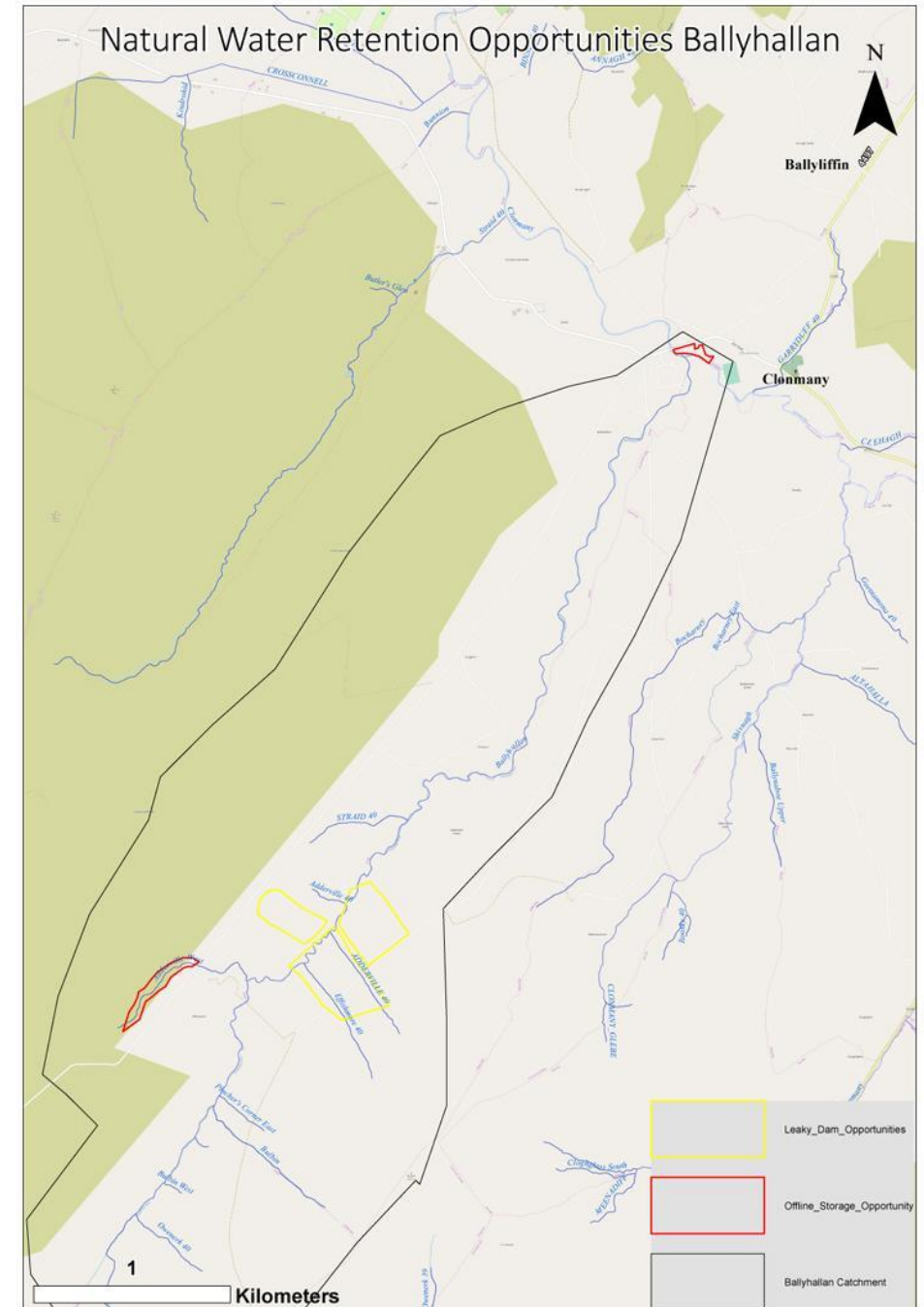
Bourke, Halpin, Brady & Quinn (2019)  
The Opportunity for Natural Water Retention Measures in Inishowen

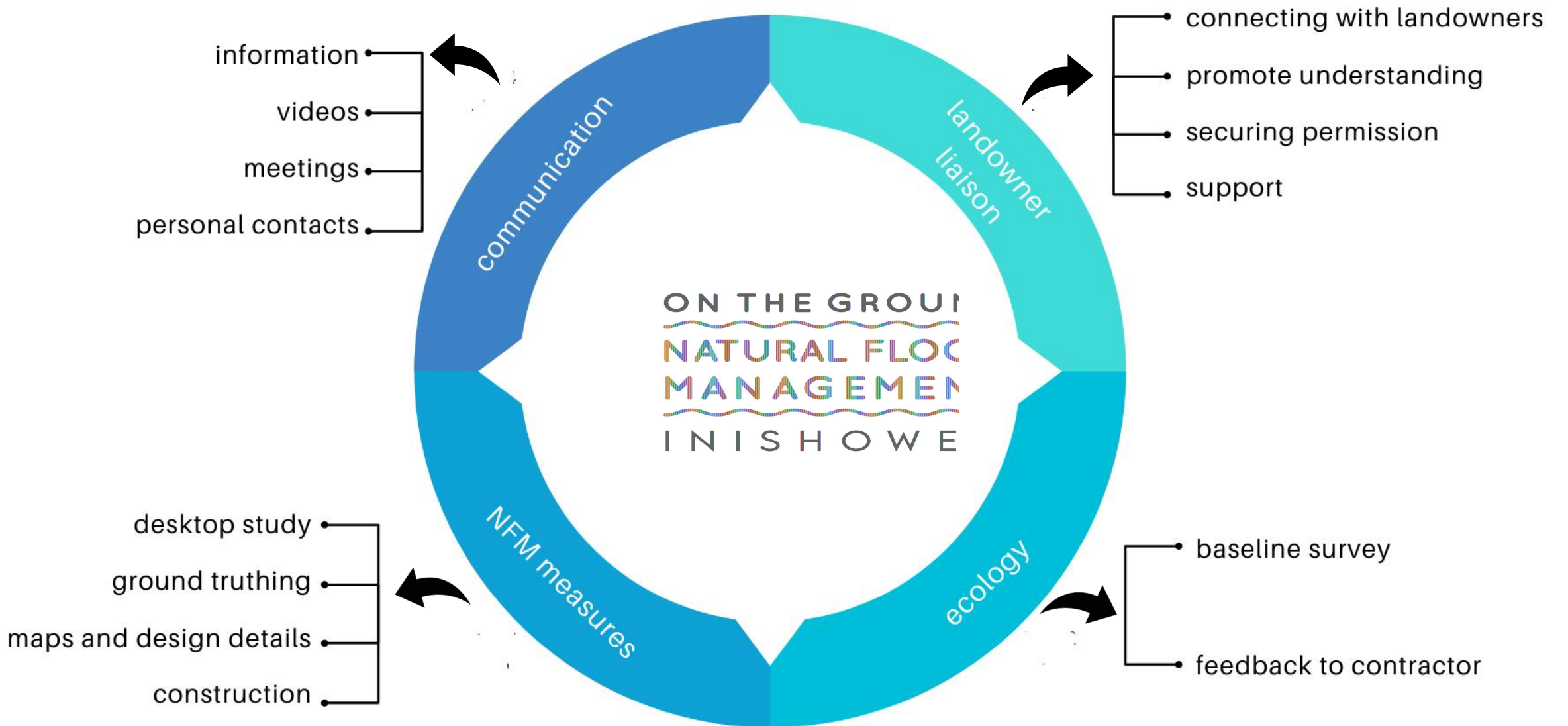


**OPW** Oifig na  
nOibreacha Poiblí  
Office of Public Works

APPLYING WORLD-CLASS ACADEMIC EXPERTISE

**CONSULT Trinity**





# Community Engagement



Connecting Communities, Valuing Our Waters & Wildlife

Inishowen Rivers Trust

**ON THE GROUND NATURAL FLOOD MANAGEMENT INISHOWEN**

**The Rivers of Clonmany**  
If you are aware of any other small streams in the area not on this map or any incorrect names or missing names, please let us know

**Get Involved**  
The Inishowen Rivers Trust have recently secured funding of €135,000 to run a Natural Flood Management (NFM) project in Clonmany. NFM is a method of alleviating floods using nature based solutions. The project aims to work with the local community to alleviate flooding and provide additional benefits such as habitat restoration and opportunities for volunteer engagement.

Inishowen Rivers Trust

**ON THE GROUND NATURAL FLOOD MANAGEMENT INISHOWEN**

**Meet the Flood Team**

An open conversation with flood consultant Philip Duffy and landowner Officer Mark Davenport online to discuss the Natural Flood Management project for Clonmany.

Join flooding consultant Philip Duffy and landowner Officer Mark Davenport online to discuss the Natural Flood Management project for Clonmany.

For more about the project, ask the contractors questions and let us know what you think.

Meeting on **APRIL 29th @ 7.30pm - 8.30pm**

For more information and to get a link to the Zoom meeting:  
[inishowenriverstrust.com](mailto:inishowenriverstrust.com) Tel: 083 912 3218  
[inishowenrivers@gmail.com](mailto:inishowenrivers@gmail.com) Tel: 087 647 8183  
 through Eventbrite <https://clonmany-flood-project.eventbrite.com>  
[www.inishowenriverstrust.com](http://www.inishowenriverstrust.com)

**2021 NFM Clonmany**

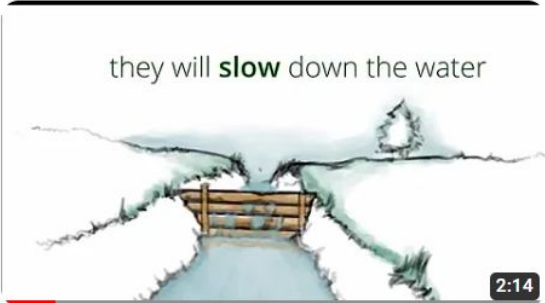
Find out more about what happened in the natural flood management project!

**ON THE GROUND NATURAL FLOOD MANAGEMENT INISHOWEN**

**IRELAND'S FIRST COMMUNITY BASED NATURAL FLOOD MANAGEMENT PROJECT**

In 2020 the community of Clonmany took a collective decision to support the idea of bringing natural flood defence measures to the rivers of Clonmany. The Inishowen Rivers Trust proposed a funding structure and the project began in 2021. This document is a summary of what has been put in place and what the future holds.

[www.nfminishowen.com](http://www.nfminishowen.com)



**LEAKY DAMS**

**GET INVOLVED IN THE CLONMANY FLOOD PROJECT AND LEARN HOW TO BUILD A LEAKY DAM**

Wear weather appropriate clothing and firm footwear. PPE provided. Meeting location will be emailed to registered participants in advance.

Join Us **SAT OCTOBER 16TH AT 11AM**

Register at <https://lr-leaky-dams.eventbrite.ie> or call Mark on 083 812 3218

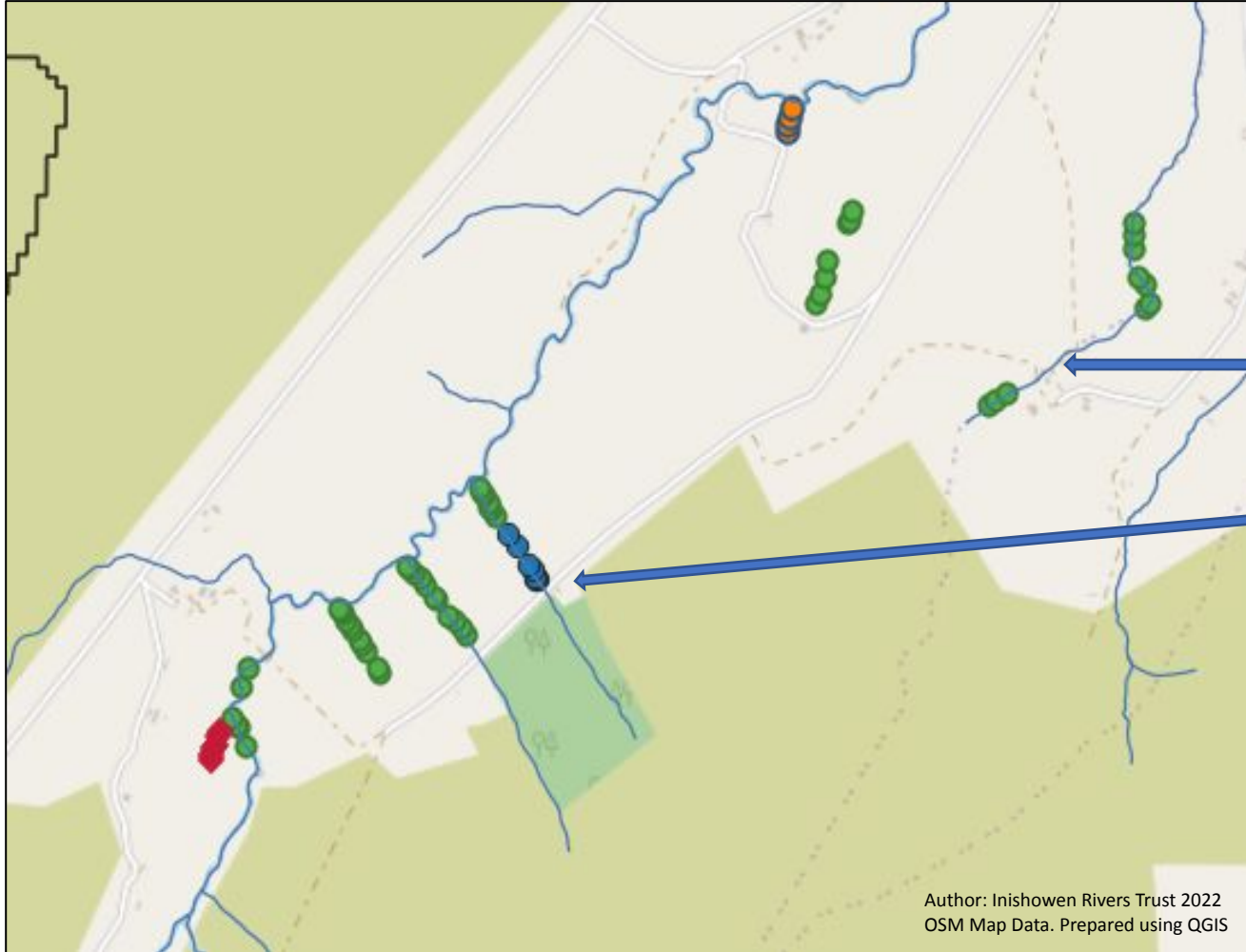
**FLOODING 101**  
A Guide to Flooding in Inishowen

# Landowner permission

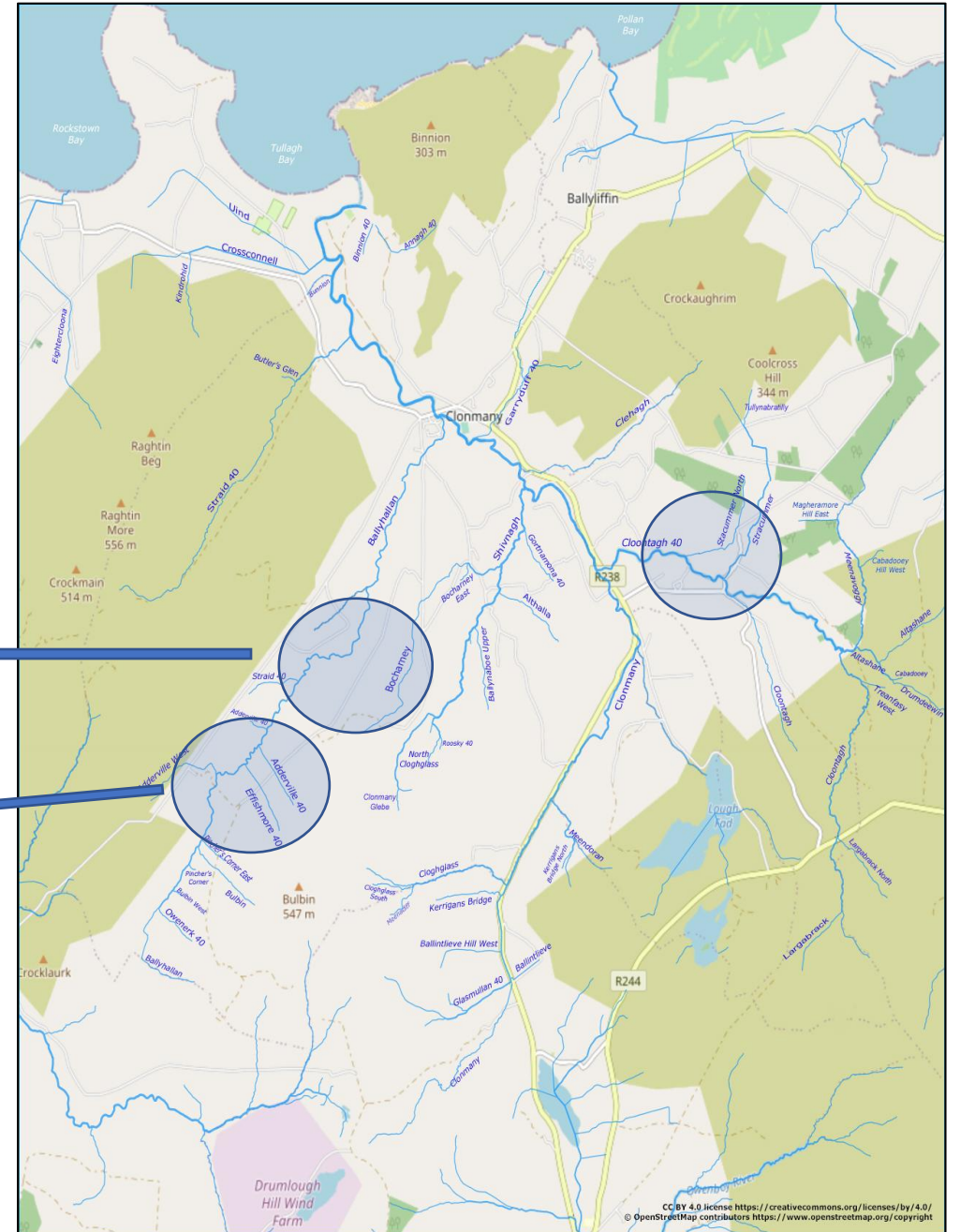
- 200 locals contacted
- 30 landowners engaged
- 11 sites agreed
  
- Dams did not require Section 50 or Section 47 consents. All checked by OPW.



# Location of measures



Author: Inishowen Rivers Trust 2022  
OSM Map Data. Prepared using QGIS



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# NFM measures

- 52 Log leaky dams
- 7 Natural log dams
- 6 Boarded dams
- 4 Check dams
- Gully stuffing



*Log leaky dam*



*Natural leaky dam*



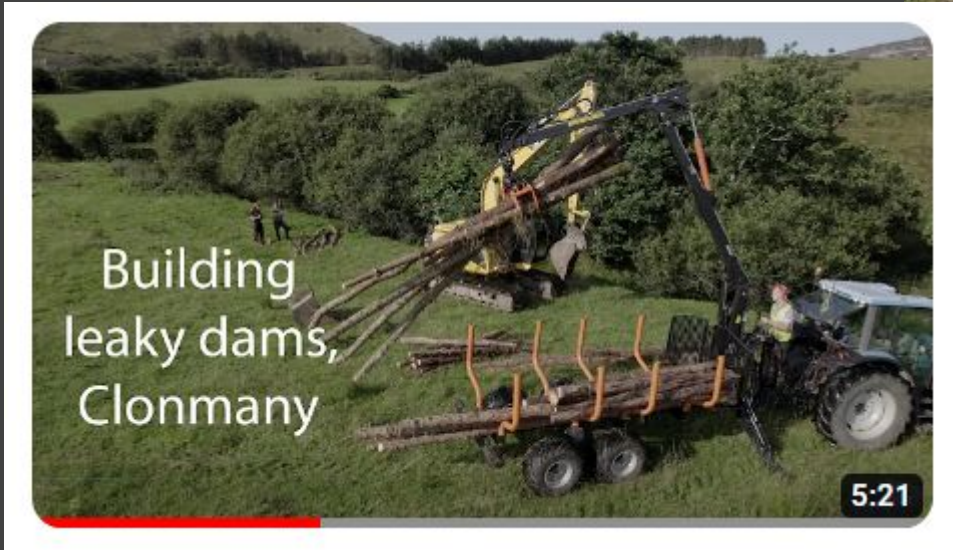
*Check dam*



*Gully stuffing*



*Boarded dam*



# Log leaky dams

- approx. 0.5m<sup>3</sup> / dam of larch or spruce
- Install 3-5 per day



# Learnings

- Local knowledge and collaboration is key
- Ground truthing critical
- Sourcing and prep materials
- Need for demonstration sites to show how leaky dam works
- Need to work sensitively with community and environment



Monitoring equipment in place

Thank You | Go raibh maith agaibh

guardianship  
clean waters  
donegal **rivers**  
restoration **community**  
conservation  
training