

2021 NFM Clonmany

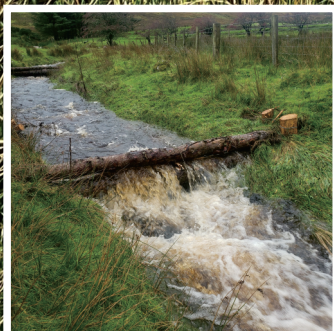
Find out more about what happened in the natural flood management project

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.

Inishowen
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www.nfminishowen.com

SLOWING THE FLOW ON CLONMANY RIVERS

There are a wide range of nature based solutions that can be used to 'slow the flow' or store water to help alleviate flooding in an area. Planting trees is a popular solution which has many benefits. Leaky dams are also popular and are designed to mimic natural processes such as fallen trees. In the Clonmany area the Inishowen Rivers Trust have now installed 69 leaky dams to help slow the flow on Clonmany rivers.

Leaky dams have the following benefits:

- Slowing the flow of flood waters temporarily to reduce the downstream flood peak
- Create a variety of flow conditions and habitat in stream which improves biodiversity
- Trap sediment to improve water quality
- Part of wider efforts to build resilience to flooding and climate change

Leaky dams are created by using large locally sourced tree trunks or timber to create a barrier across the stream, which rests on both banks and is secured in place. Depending on the method, leaky dams are secured either by placing the lateral pieces behind wooden posts driven into the bank, digging ends of the trunks into the bank and compacting into place, or are secured into place using metal rebar pins drilled down through the end pieces and into the earth. Gaps are created between each piece of wood so that water can "leak" through. The height of the lowest timber should allow normal flows to pass underneath permitting fish and river insects to pass.

During heavy rain events water starts to pool behind each structure and drains away slowly. Some sediment/brush may build up behind the structures but these will normally wash away or degrade over time. There should be no prolonged flooding or water storage at the dams, and these measures do not impact on normal farming practices.



BEFORE A FLOOD

Leaky dam on the Ballyhallan River before and during a flood. Water is slowed down as it comes through the dam, helping to increase the amount of time it takes the flood to reach downstream.



DURING A FLOOD

TYPES OF MEASURES INSTALLED IN CLONMANY

Between August and October 2021, the team at Inishowen Rivers Trust with the aid of Inish Forestry and volunteers, installed measures of 5 different types on the rivers on Clonmany. These are located on the Ballyhallan River and tributaries, Bocharney River, and Cloontagh River.

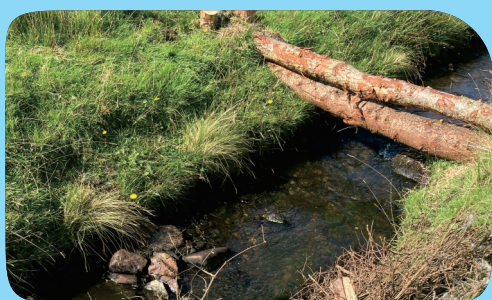


NATURAL LOG DAM

Natural log dams use existing vegetation on the river which is cut and hinged across the width of the channel. The tree is not fully cut through so it can continue to grow and is pinned into place on the opposite bank.

MATERIALS

Willow or alder trees growing on banks, rebar and washers.



LOG LEAKY DAM

Long trunks are placed across the width of the channel and embedded into the banks on either side. The trunks are wired and secured into place.

MATERIALS

Larch or spruce trunks, wire. Need a digger to install.



BOARDED DAM

Wood cut into 2 inch boards and embedded into the banks of drains and very small channels. These work in the same way as the other dams holding water temporarily and allowing it to leak out through the gaps.

MATERIALS

Larch or spruce boards cut 2 inches thick.



STONE CHECK DAM

Gravel heaped in piles on drains that run into a river channel. Gravel is compacted with a digger bucket. Heavy rainfall in the channel is slowed down as it trickles through the stone.

MATERIALS

Gravel/stone chip of two different grades. Compacted with digger bucket.



GULLY STUFFING

Drainage gullies are stuffed with brush and pieces of wood that slow down the water that accumulates in drains after heavy rainfall. Forest gullies are easily stuffed.

MATERIALS

Brush compacted into bundles and wedge into place across drains.

WHAT HAPPENS NEXT?

Over the coming months, the IRT will continue to gather data about how the dams are performing. We would really appreciate hearing more from the local community about flooding and if you notice any difference on the Ballyhallan River. We especially would like to see any photos of flooding and we will keep the community informed through posts on social media and on our website. We are very happy to discuss further work in the catchment or to expand the range of solutions with landowners.

If you would like to learn more about the project and NFM, please contact us using the details below or view our website. A number of videos were produced as a part of this project and these are available on our YouTube channel. Search for Inishowen Rivers Trust.

Thank You!

WE WOULD LIKE TO EXPRESS OUR SINCERE GRATITUDE TO THE COMMUNITY OF CLONMANY FOR THEIR SUPPORT FOR THIS PROJECT. TO ALL THE LANDOWNERS, LOCAL RETAILERS, COMMUNITY CENTRE AND TO EVERYONE WHO CONTRIBUTED IN ANY WAY WITH LOCAL KNOWLEDGE AND ADVICE. THANK YOU



Connecting Communities,
Valuing Our Waters & Wildlife

Find out more on www.inishowenrivertrust.com | www.nfminishowen.com

Email: inishowenrivertrust@gmail.com Tel: 087 647 8183



Registered in Ireland CLG: 587285 | RCN: 20153106 | CHY: 22625



OPW
Oifig na nOibreacha Poiblí
Office of Public Works



This project was funded through the EU LEADER Programme 2014-2020 European Agricultural Fund for Rural Development: Europe investing in rural areas with additional support from the OPW, LAWPRO and Donegal County Council.