



# Mountmellick

FLOOD RELIEF SCHEME



## NEWSLETTER NO. 2

October 2020



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



**BARRY**  
& PARTNERS  
consulting engineers

## Background to the study

Laois County Council, along with project partners the OPW, have appointed a team from JBA Consulting & JB Barry to assess, develop and design a viable, cost-effective and sustainable flood relief scheme which aims to minimise risk to the existing community, social amenity, environment and landscape character.

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*Storms Ciara and Dennis have provided us with a wealth of information on rainfall patterns and river responses.*

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## Storms Ciara and Dennis

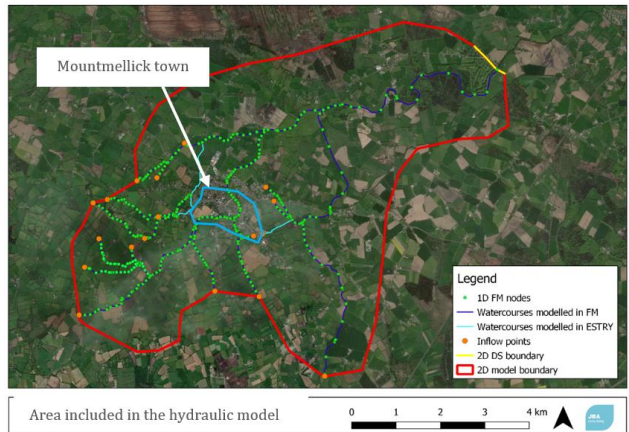
As you will know, in February we experienced a severe rain event as Storm Ciara passed across Ireland. In Mountmellick, the town park and lands around the MDA flooded although the creche was protected by sandbags and several hours of pumping. There was significant flooding in the lands upstream of the town, and in particular around Cloncannon. Fortunately, flooding of property was limited. Later that week, Storm Dennis also hit but this time flooding was much less extensive. We were able to gather extremely useful information from both these flood events and now have a lot of data relating to rainfall volumes and patterns, river levels and response time and impacts on land and properties. This information has been used to help us calibrate and validate our flood model so we can be more confident in the way we are representing flooding in Mountmellick.

## Project Progress

Since we visited Mountmellick for the Public Engagement Event in November 2019 we have been working to understand the linkages between rainfall across the catchment, and especially in the Slieve Blooms, and the speed that the Owenass and Pound Rivers rise as a result and their interaction across the floodplain upstream of Mountmellick Bridge.

We have built a hydraulic computer model of the Owenass, Pound and Triogue rivers and their tributaries. The model is being used in the following ways:

- To understand the 2017 and 2020 floods; we believe the 2017 flood was approximately a 1 in 100 year event (1% chance of happening in any year). This means the finished scheme, which will protect against a 1 in 100 year flood, would have prevented the flood damage witnessed in 2017.
- To let us assess the impact on property and people in a design event; we need to know how many properties and other infrastructure would flood in a 1 in 100 year event, where they are and to what depth the water would rise. With this information we can work out the economic and non-monetary flood damages and the benefits and costs of the scheme.
- To help us select the most sustainable scheme; we are looking at a range of measures, including walls and embankments, channel widening and deepening, upstream storage and balancing flow between the Owenass and Pound. The model will allow us to test these measures to find one or more combinations which will protect Mountmellick. These will then be assessed in detail and a preferred option selected.
- We are also looking at flooding from non-river sources; Davitt Road in particular, as this is vulnerable to surface water flooding and backing up from the drainage system. There will also be areas where we need to install pumps to make sure the defences don't back up the system.







## Next Steps

- Continue the modelling to test various flood management measures
- To carry out CCTV survey of a number of culverts and site investigation survey to understand ground conditions through the study area. Contractors will be on site for both surveys in the coming weeks
- To test the impact of climate change on the measures and options so we know how adaptable they will be
- To develop a number of flood management options (combinations of measures) which are viable and cost effective and can be discussed at a Public Engagement Day
- Environmental Assessment of the Options selected

## Programme

Activity	2019	2020	2021	2022	2023	2024
Assemble all the available data, including modelling	[Blue bar with cloud icon]					
Site Investigation contracts		[Blue bar]	[Green bar]			
Environmental Constraints Study	[Blue bar]					
Options development		[Blue bar]	[Green bar]			
Ecological and environmental assessments		[Blue bar]	[Green bar]			
Preparation of planning submission				[Green bar]		
PART 10 Planning Application with An Bord Pleanala				[Yellow bar]		
Detailed design for Flood Relief Scheme				[Green bar]		
Tender process for Flood Relief Scheme					[Yellow bar]	
Construction works						[Yellow bar]

Key Storms Ciara and Dennis  JBA / JB Barry led activities  Third party activity  Ongoing / completed  

## Contact Us

You can keep in touch with the project through our website, which has recently been updated with additional project information, or via Facebook. Please keep sending us your photos, videos and accounts of flooding.

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