

CONTACT US

You can keep in touch with the project through our website where we will be posting updates on progress and details of works that are ongoing. For further enquiries feel free to contact us via email or post at:

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RELEVANT LINKS

Website: <https://countydonegalfrs.ie/castlefinnfrs/>

COUNTY DONEGAL
FLOOD RELIEF SCHEMES



Tionscaldal Éireann
Project Ireland
2040

OPW
Oifig na
nOibreacha Poiblí
Office of Public Works

CASTLEFINN

Flood Relief Scheme

Newsletter No.3
May 2021

<https://countydonegalfrs.ie/castlefinnfrs>



WHAT STAGE IS THE PROJECT AT?

The opening consultation period is closed and the team are following up with anyone who noted they could provide additional historic flood information. The project team are still interested in receiving photos, videos, sketches or any other relevant information regarding previous flood events from those who have experienced it first-hand. The information provided will help the project team to refine the river model and the design of the flood relief scheme. All project information remains available on the project website www.countydonegalfrs.ie/castlefinn including contact details for the team. A second public consultation will be held when a preferred option has been identified so that you can see how your submissions have been accounted for.

Murphy Geospatial (www.murphygs.ie) has completed fieldwork and submitted draft deliverables of property threshold, river and terrain surveys. The surveys have captured the data needed to build an up to date computer model of the River Finn, its incoming watercourses, existing defences and floodplains in the area.

Defence Asset Condition (DAC) surveys of existing flood defences have also been completed. These will be used to make informed decisions on the reliability of existing flood defences when options for the flood relief scheme are being considered in detail.

The approach to hydrology was agreed with the steering group at the Hydrological Technical Workshop (16th December 2020). The project team have since been working to define the critical river flows and flood scenarios that will be simulated in hydraulic models. The physical characteristics of the catchments that influence water run-off and data from hydrometric gauges (river flow and water level) and meteorological (rainfall) stations have been analysed to determine the flood events that the Scheme will be designed to withstand. Detailed review of the flow data available from the gauge upstream at Ballybofey is an important part of the analysis. Further work to finalise and refine the design river flows will be carried out alongside the hydraulic model development and calibration. Full details of the analysis undertaken and the outcomes will be provided in a Hydrology Report which will be available on the Project Website when completed.

Development of a hydraulic model which will be used to simulate the flood risk at Castlefinn has commenced. The model includes representation of:

- **river and watercourse channels (known as a 1D model) developed from the river channel cross section surveys;**
- **floodplain (known as a 2D model) developed from digital terrain data and topographical survey building threshold levels within the 2D model, and;**
- **the floods flows generated by the catchments upstream and the water level conditions in the River Foyle downstream which would be expected to occur during a flood (resulting from the hydrological analysis).**

RPS has undertaken a number of baseline environmental surveys during these initial stages of the project to capture key environmental constraints for the Castlefinn Flood Relief Scheme. These included habitat and protected species surveys, aquatic surveys including a fisheries habitat survey and an assessment of the physical condition of the river corridor and tributaries. These field surveys were supplemented with desk based data collection of existing datasets and information in relation to Biodiversity, Soils and Geology, Archaeology, Architectural and Cultural Heritage, Land Use and Material Assets, Landscape and Visual Impact, and Population and Human Health. Using this baseline information and feedback from the opening public consultation a constraints study has been undertaken to identify key environmental issues associated with the scheme area which may be impacted by flood alleviation measures and/or which may impose constraints on the viability and/or design of such measures.

The Environmental Constraints has been drafted and when finalised it will be available to download from the project website. Key constraints include the downstream European designations in particular the River Finn SAC and the species for which it is designated, Salmon and Otter. The field surveys identified badger, otter and bat activity and more detailed surveys of these protected species will be undertaken. The habitats in the Scheme area are mostly improved or semi-improved grassland however there is a natural wet grassland area behind the recently constructed embankment. There are over 25 buildings of architectural heritage. Most of the older buildings in the village date to the end of the 19th century or later although Crawford Properties/McGranaghans Food Market was built circa 1790-1830 and the Donaghmore Glebe Gatehouse circa 1800-1840. Archaeological sites from the prehistoric period right through to the medieval period are among those recorded.

An Invasive Species Management Plan (ISMP) has been prepared by RPS in conjunction with DCC and the OPW. The plan defines the location of invasive non-native species in relation to Castlefinn Flood Relief Scheme (FRS). These species need to be controlled and managed to reduce the risk of interfering with design and construction of the Scheme and reduce potential environmental impacts. The Plan sets out how to manage and/or eradicate invasive species in advance of design and construction. DCC have procured a specialist contractor to undertake treatment of Japanese Knotweed in accordance with ISMP.

IMPACT OF CORONAVIRUS (COVID-19)

The project team have worked hard to ensure that all activities on the project are in compliance with the public health guidance on Coronavirus whilst at the same time trying to reduce negative impacts on the project programme. The FRS Steering Group (comprising of the OPW, Donegal County Council and RPS) have continued to meet regularly using video conferencing. Progressing flood relief schemes have been deemed as an essential service by local authorities.

OUTLINE SCHEME PROGRAMME

	Activity	2020	2021	2022	2023	2024	2025
Stage 1	Data Collection and surveys	█					
	Hydrological Analysis	█	█				
	Hydraulic Analysis		█	█			
	Scheme analysis & development		█	█			
Stage 2	Planning			█	█		
Stage 3	Detailed design of Scheme				█	█	
Stage 4	Construction works					█	█
Stage 5	Scheme Operational						█

Timelines provided as current best estimate, but are subject to revision.

NEXT STEPS

Data Collection: The team have collated all available data relating to river flows, rainfall, the environment and existing infrastructure that is relevant to the project. Where data gaps have been identified we have completed or planned survey work to fill them in. Through our consultations with the public and statutory agencies so far we have gathered all known information on past flood events in Castlefinn. Nevertheless we are still interested in receiving information on local flood history or the environment where available. If you have any information which could be of use, please contact the project team (contact details available on the project website www.countydonegalfrs.ie/castlefinn).

Surveys: The property threshold, river, terrain and Defence Asset Condition (DAC) surveys have all been completed. Draft deliverables have been submitted and survey data is being reviewed for use in the hydraulic model.

Hydrological Analysis: The next steps in the hydrological analysis will focus on refining and finalising the design flows and water levels which are used within the models to simulate flooding.

Hydraulic Analysis: Development of the hydraulic model will continue over the next few months until a model which is validated against the history of flooding in Castlefinn is achieved. This will focus on mapped flood extents, recorded flood depths and other flood event data.

Option Development: The first steps in option development involve the listing of all potential flood risk management measures which may be applicable at Castlefinn. These will be screened such that measures which could be technically and economically viable, socially and environmentally acceptable are taken forward for detailed assessment. The detailed assessment of flood risk management options (combinations of measures) for Castlefinn will then be undertaken.

Environmental Assessment: Further detailed environmental surveys are programmed over the summer/autumn period to include ecological surveys that are seasonally constrained or more specialist surveys that are required to build on the initial baseline surveys, including electrofishing, protected species surveys, e.g. otter, archaeological and architectural surveys. The environmental constraints and opportunities identified will inform the appraisal of the options for the FRS ensuring early consideration in design and a robust assessment of the potential environmental impact of the preferred scheme.