

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/downingsfrs/>

COUNTY DONEGAL
FLOOD RELIEF SCHEMES



Tionscaldal Éireann
Project Ireland
2040

OPW Oifig na
nOibreacha Poiblí
Office of Public Works

NA DÚNAIBH

Flood Relief Scheme

Newsletter No.3
May 2021

<https://countydonegalfrs.ie/downingsfrs>



WHAT STAGE IS THE PROJECT AT?

The opening consultation period is closed and the team are following up with anyone who said 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/downings 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 Rosapenna stream, its floodplain and the areas potentially at risk of coastal flooding in Downings Bay.

A visual inspection of existing flood defences was undertaken to complete the Defence Asset Condition (DAC) survey. This 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 flows in the Rosapenna Stream and coastally driven wave and seawater levels 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. 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 the hydraulic model which will be used to simulate the flood risk in Na Dúnaibh has commenced. The model includes representation of:

- **river and watercourse channels (known as a 1D model) developed from the river channel cross section surveys;**
- **the coast and floodplain (known as a 2D model) developed from surveyed beach profiles, topography and digital terrain data;**
- **building threshold levels within the 2D model, and;**
- **the floods flows generated by the catchments upstream and the sea level conditions in Downings Bay 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 Na Dúnaibh Flood Relief Scheme. These included habitat and protected species surveys, over wintering bird surveys, aquatic surveys including fisheries habitat surveys 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 relief measures and/or which may impose constraints on the viability and/or design of such measures.

The Environmental Constraints report has been drafted and when finalised it will be available to download from the project website. Key constraints identified include the downstream designations and in particular the Sheephaven SAC and Horn Head to Fanad Head SPA. The area is significant for wetland birds given its proximity to the Horn Head to Fanad Head SPA, and a number of important birds, including curlew, oystercatcher and common gull were recorded on agricultural fields behind the Carrigart to Downings regional road (R248). A small flock of whooper swan were noted in the lake just outside the town and a number of brent geese were recorded feeding on the estuary immediately north of Carrigart. Some of the habitats for which the Sheephaven SAC are designated occur within the Study area, e.g. marram dunes (white dunes). There are a number of archaeological sites in the area. Sites from the prehistoric period (a standing stone) right through to the medieval period are among those noted as possible constraints in the study area. Given the location of the scheme in an area of high scenic amenity the landscape character is more sensitive and the scenic amenity will require careful consideration in the further environmental assessment of the options and emerging preferred scheme.

An Invasive Species Management Plan (ISMP) has been prepared by RPS in conjunction with DCC and the OPW. The Plan sets out how to manage and/or eradicate invasive species in advance of design and construction.

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 Flood Relief Scheme 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 Na Dúnaibh. 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/downings).

Surveys: The property threshold, river, beach, terrain and Defence Asset Condition (DAC) surveys have all been completed on the Rosapenna stream, Downings Beach and surrounding areas. 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 the area 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 in the area. These will be screened to ensure 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) will then be undertaken.

Environmental Assessment: Further detailed environmental surveys are programmed over the summer/autumn period to include ecologically surveys that are seasonally constrained or more specialist surveys that are required to build on the initial baseline surveys, including further bird surveys and landscape and visual 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.