

Newsletter

South Galway
(Gort Lowlands)
Flood Relief Scheme



South Galway (Gort Lowlands) Flood Relief Scheme



Background to the Study

Galway County Council, in conjunction with the Office of Public Works, are progressing the South Galway (Gort Lowlands) Flood Relief Scheme and associated studies. The Study Area includes a vast lowland area in south Galway and adjacent parts of the Burren in north Clare.

The Gort Lowlands has a long history of groundwater flooding, with notable flooding throughout the 1990s, 2009, 2015/16 and most recently in 2020. Flooding of houses, farms and commercial premises occurs throughout the study area. Important regional road infrastructure including the M18 Gort to Tuam motorway, the Limerick to Athenry railway line and the R458 are at flood risk.

This project involves the assessment and development of a Flood Relief Scheme and other measures to manage existing flood risk and the potential for significant increases in this risk (i.e. climate change) in the Gort Lowlands area.

The project was set up in 2017 following the most severe flooding in living memory during the winter of 2015/2016. A steering group was formed for the project comprising of Galway County Council, the OPW, Geological Survey Ireland (GSI) and Trinity College Dublin (TCD). Ryan Hanley was appointed to provide engineering consultancy services and Mott MacDonald was appointed to provide environmental consultancy services to develop a scheme which is technically, environmentally, socially and economically acceptable.



Progress to Date

Initial Stages

On commencement of the Project, the Project Team initiated an extensive data collection exercise, including a threshold survey to collect local flooding information, property data and to inform hydrological assessments. Collection of existing data from previous studies on the Gort Lowlands flooding was carried out, including information requests and contact with parties involved in previous assessments.

Opening Public Consultation Process

The opening public consultation took place in May 2018, where an information evening in Gort Town was held to gather information and opinions on the flooding in the area. Locals were encouraged to provide feedback including any information on past flood events, the main impacts of the flooding and what they perceived to be the cause of the worsening flooding.

Constraints Study and Appropriate Assessment

Work also commenced on the collation of information on environmental constraints within the study area. A Constraints Report was published for the scheme, informed by information gathered during the Open Public Consultation Process.

An Appropriate Assessment Screening Report was prepared. Environmental Surveys have also been carried out.

Hydrological Analysis

Detailed hydrological assessments have been carried out by TCD since 2003 to inform their Hydraulic model for the main Gort Lowlands turlough and conduit system. Working with the GSI, TCD have determined site specific rainfall Annual Exceedance Probabilities for the study area backed up by years of data for the contributing catchment area.



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Progress to Date (continued)

Ryan Hanley have also carried hydrological analysis of sub-catchments within the study area where sub-schemes are required to alleviate flooding. These assessments are aided and informed by GSI groundwater mapping for these sub-catchments.

Hydraulic Analysis

TCD, in conjunction with GSI, have over the past 17 years developed a hydraulic model of the main turlough and conduit system of the Gort Lowlands area following in depth research into the flooding in the area. Calibrated against major flood events in 2009 and 2015/2016, this model provides accurate estimates of flood levels, flood flows and durations for the main turlough system upon which the scheme assessment is based.

The hydraulic model has also provided clarification on the impact of land management in the Sliabh Aughty Uplands to the lowlands area.

The TCD hydraulic model does not however extend to peripheral flooded areas within the study area.

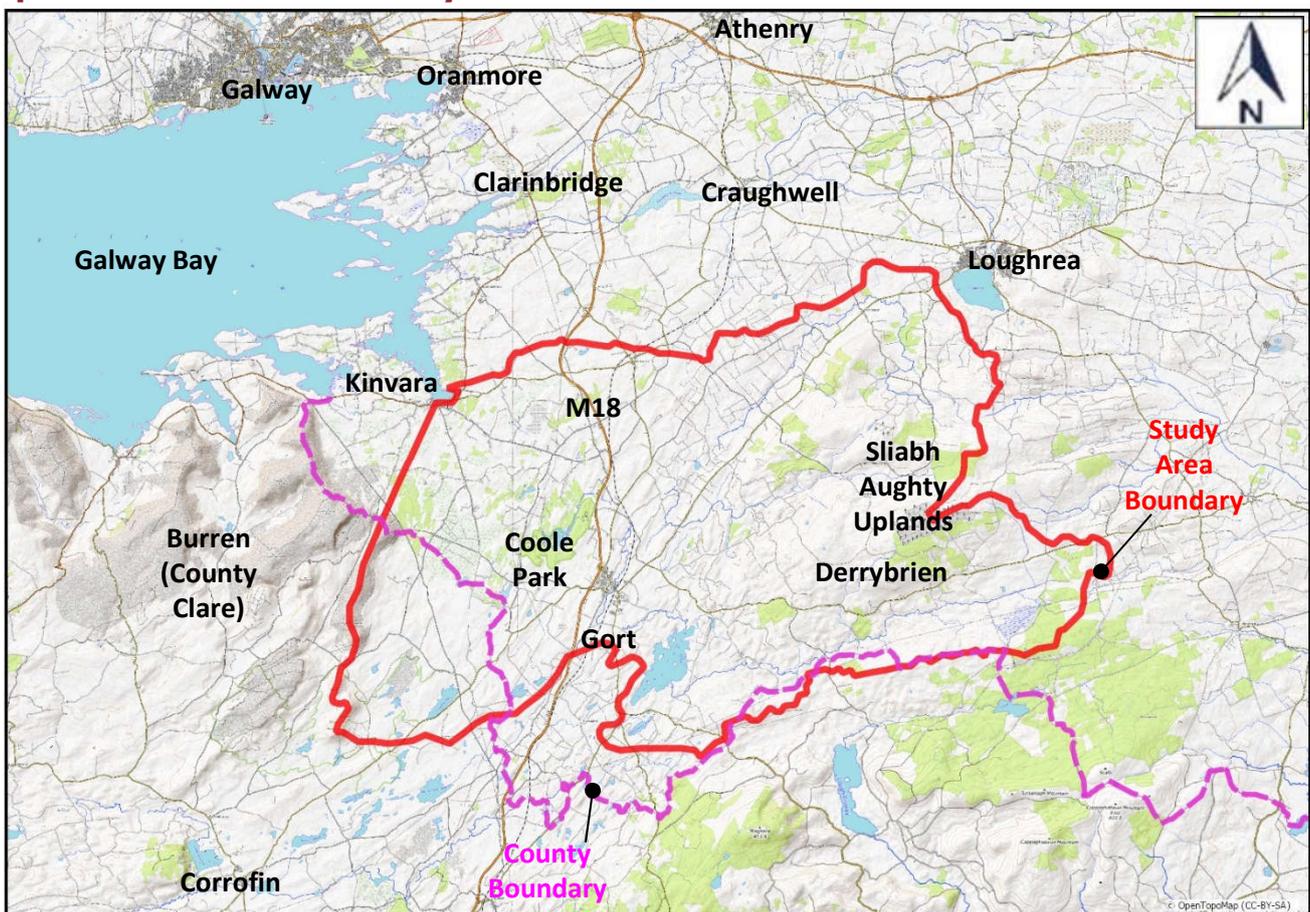
In these floodplains, Ryan Hanley undertook hydraulic modelling and supporting hydrological assessments. This included updating of the existing CFRAM study hydraulic model for the Gort River. Channel and floodplain characteristics and catchment hydrology were updated, along with further calibration of the model using data from the recent winter 2015/16 flood event.

Feasibility Study

A scheme has been developed for the purpose of assessing whether a feasible scheme exists which will alleviate flooding in the study area (Gort Lowlands).

The scheme has been assessed taking account of technical, hydrological, hydraulic, environmental and economic considerations and the Feasibility Study for the scheme is nearing completion. At this stage of the process the scheme assessed would appear to be technically viable and early indications are it has the potential to be both environmentally and economically feasible based on the information currently available. This is the first time a potentially feasible solution has been identified to resolve the flooding issues in the South Galway (Gort Lowlands) area.

Proposed Flood Relief Study Area



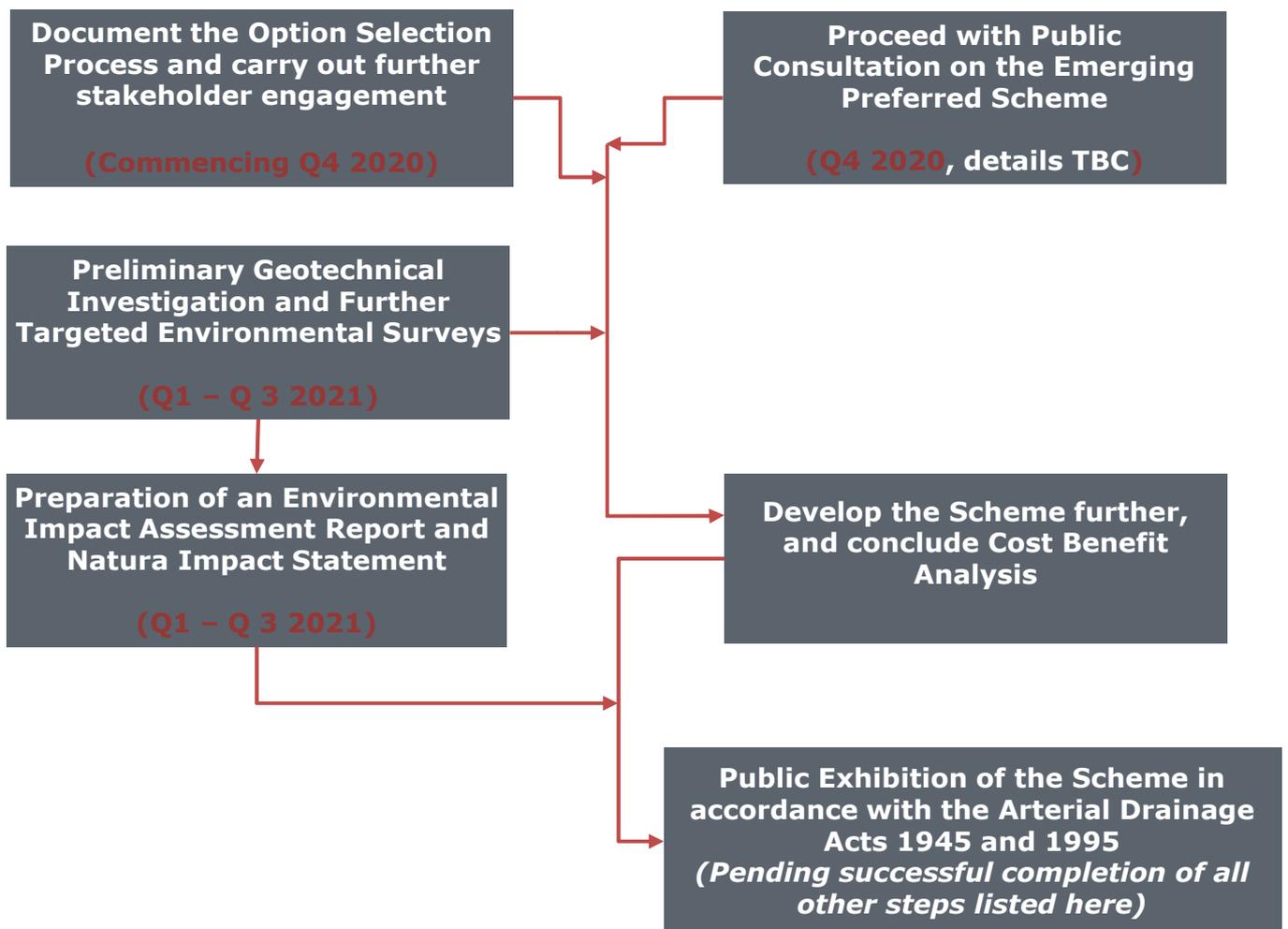
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Next Steps

The project team will now progress the Options Assessment of the scheme in advance of public consultation, further details of which will be announced over the coming weeks.

Options assessment will involve consideration of a range of alternative flood schemes for the area, taking into consideration technical, environmental, social and economic criteria. An emerging preferred scheme will be identified which will be presented to allow stakeholders and the public to input their views before the options selection process is concluded.

The following is a summary of the next steps associated with the Project:



Contact Us

Should you have any queries on the Project or have any historical flood data or environmental/ ecological information that may inform the design, please contact the Project Team by phone, email or through the Project website.

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