

## 70,000 Irish addresses at risk of coastal flooding by 2050

### Coastal flooding caused by climate change is predicted to impact more than 70,000 Irish addresses by 2050, according to research by Irish firm Gama Location Intelligence.

It is estimated that the cost of climate change, influenced by sea level rise, on property in Ireland will be [approximately €2bn](#).

Gamma Location Intelligence's analysis found that some 88pc of these addresses are residential, amounting to approximately 62,000 homes. Dublin, Louth and Clare were found to be the most affected counties in terms of the amount of addresses expected to be impacted.

The analysis showed that Dublin will be the most affected county in terms of the number of addresses expected to be impacted by extreme coastal water levels, with some 21,513 residential addresses and 1,922 commercial properties at risk.

Gamma's findings are based on [predicted 2-degrees Celsius rise](#) in temperature, causing higher sea levels and more extreme weather events, leading to coastal flooding

This temperature increase is expected to happen by 2050, but could be delayed by reduction in carbon emissions.

The forecast was compiled by overlaying address points from the [Q4 2019 Eircode Address Database](#), onto a Digital Terrain Model, which shows the shape and height of land, the impact of coastal flooding on residential and commercial properties can be assessed. These figures are for coastal flooding only and it should be noted that in typical scenarios numerous types of flood act together. Simultaneous heavy rainfall and high river levels in addition to coastal flooding will cause even more properties to be impacted.

### Where Ireland will be hit hardest by Climate Change

The analysis showed that Dublin will be the most affected county in terms of the number of addresses expected to be impacted by extreme coastal water levels, with some 23,435 properties at risk. This translates as 21,513 residential addresses and 1,922 commercial properties.

Gamma Location Intelligence found that Louth (11,248) will be second most affected, with some 10,280 residential and 968 commercial properties predicted to be impacted, followed by Clare with 7,376 homes and 1,320 businesses at risk. Limerick (5,426) and Galway (4,501) rounded out the top five areas expected to be most impacted by increased flood risk as a result of climate change.

However, in terms of the proportion of addresses that are expected to be affected, Louth will be the worst with 19pc of its addresses due to be impacted. The next highest is Clare (13.3pc). In contrast, only 3.9pc of Dublin's addresses will be at risk.

These findings are based on a predicted global temperature increase of 2-degrees Celcius which climate scientists expect to happen in the next 30 years in some scenarios. This increase would cause sea levels to rise and bring about more extreme weather events, leading to higher and more frequent coastal flooding.

Gamma Location Intelligence mapped out the impact of this temperature increase utilising the Digital Terrain Model within its Perilfinder software platform. This solution assesses location risk for properties including flooding, fire, subsidence and crime.

“Global warming is already having an impact on our daily lives, but the effects of it will become more tangible and extreme in the years to come,” explained Richard Cantwell, senior spatial data scientist at Gamma Location Intelligence.

“With increasing global temperatures, sea levels are rising which means flooding will become more commonplace. This will have a major impact on many Irish counties, particularly along the coast, and a significant number of properties are set to be affected – unless carbon dioxide emissions are reduced which will help to delay the process.

“Of course, the situation that is unfolding across the globe due to the Covid-19 crisis has resulted in a drop in carbon emissions over recent weeks with flights grounded, businesses closed and less pollution. Whether this decrease will continue when lockdown measures are eased remains to be seen.

“In any event, such data is vital as homeowners, local authorities and insurance companies start to plan for the future. Flood risk is one that will increase exponentially, so it's vital that the necessary

infrastructure is in place to cater for the changing Irish landscape.”

## **Interview with Gamma Location Intelligence CEO Feargal O’Neill on the power of location data during Covid-19**

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