

# Predictive Coastal Flood Extent Map



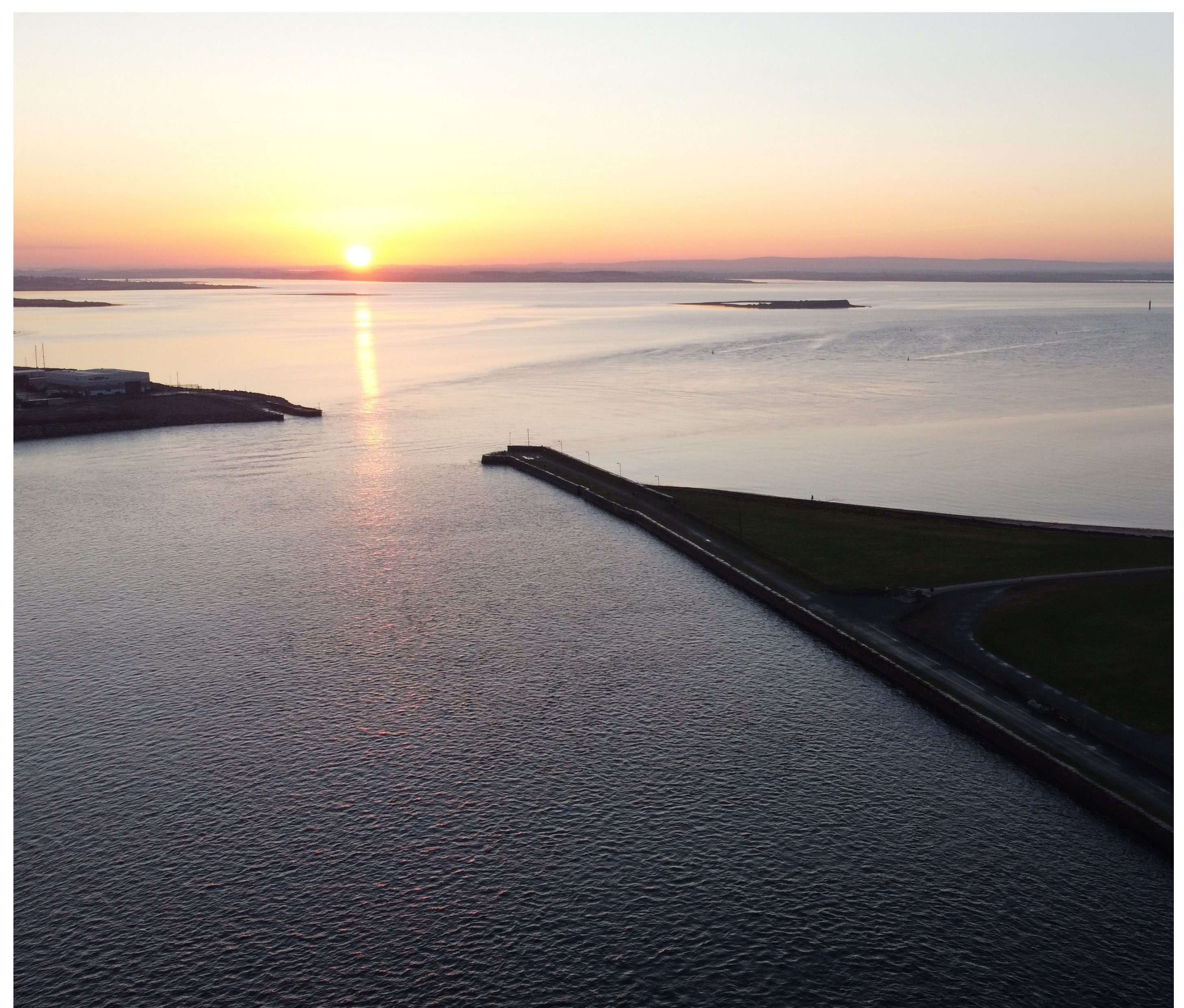
## Coastal Flooding (Tidal and Wave Overtopping)

Coastal flooding occurs when a storm surge event coincides with a high astronomical tide causing the tidal water level to exceed the existing ground level adjacent to the coast. A further source of coastal flooding in Galway city is wave overtopping in which breaking waves lead to water flowing onto the floodplain. Wave overtopping typically occurs in combination with tidal flooding.

Coastal flooding was assessed in detail as part of the study using a dynamic hydraulic model of the entire coastal floodplain of the study area. Both sources of coastal flooding were assessed in detail as part of the work: direct tidal flooding and wave overtopping flooding.

The City Centre is generally sheltered from wave overtopping and is therefore predominately at risk from direct tidal flooding only. The rest of the study area is however at significant risk from both sources of coastal flooding. This includes the areas adjacent to Grattan Road, Salthill Road Lower as well as Salthill and all along the Upper Salthill Road.

The target Standard of Protection for coastal flooding for the scheme is to prevent flooding to properties during fluvial flood events with a 0.5% Annual Exceedance Probability (AEP). For further information on the Standard of Protection of the scheme, refer to the Boards Overview.



Annual Exceedance Probability	Probability of Occurrence in a Given Year	Return Period (Years)
0.5%	1 in 200 chance	200