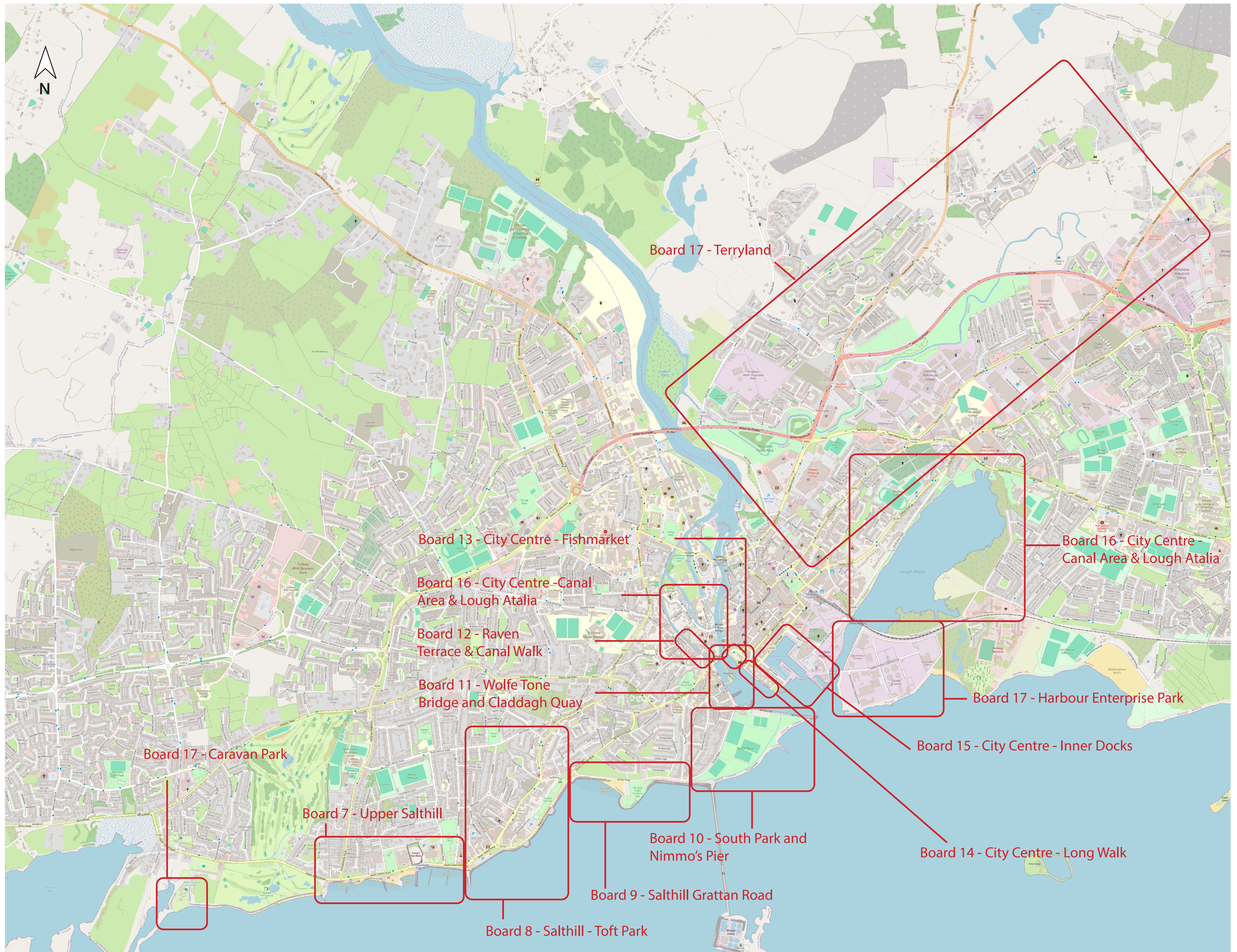


Boards Overview



What is the Standard of Protection (SoP)?

The Standard of Protection (SoP) of a scheme refers to the magnitude of flood, often defined by the Annual Exceedance Probability (AEP), that proposed measures / works are designed to protect the area at risk of flooding against. The target SoP for **Coirib go Cósta | Galway City Flood Relief Scheme** is to prevent flooding to properties during fluvial flood events with a 1% AEP and coastal flood events with a 0.5% AEP.

The proposed defences include a freeboard allowance to allow for uncertainty in the design. This allowance varies to reflect the amount of uncertainty and the type of defence.

For areas subject to Fluvial (River) Flooding

Annual Exceedance Probability	Probability of Occurrence in a Given Year	Return Period (Years)
1%	1 in 100 chance	100

For areas subject to Coastal Flooding (Tidal and Wave Overtopping)

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

Scheme Climate Change Adaption Plan

A detailed Scheme Climate Change Adaption Plan (SCCAP) will be prepared for the Emerging Preferred Scheme, which will identify the strategy for maintaining the SoP of the scheme in the event of future increases in extreme flood risk. Possible strategies include:

- The 'Adaptive' approach to design involves building or implementing a measure to address the existing flood regime, but with specific design provision to permit low-cost enhancement or amendment to address potential future flood regimes; or
- An 'Assumptive' approach involves design to an assumed potential future flood regime. This might be applied where future low-cost adaptation of the measure is not possible; or
- A combination of the above approaches. It is currently proposed to take an assumptive approach for defences in areas affected by coastal flooding. This upfront climate change allowance will ensure that the target SoP will be maintained further into the future. For the coastal elements of the scheme, the agreed present-day design basis is the current extreme coastal water level plus a 250 mm climate change allowance. This is considered a reasonable allowance taking into consideration current sea level rise predictions whilst maintaining defences at an acceptable height.

As part of the proposed scheme, pump stations will be adequately placed to mitigate against the potential risk of water accumulating behind the proposed defences.