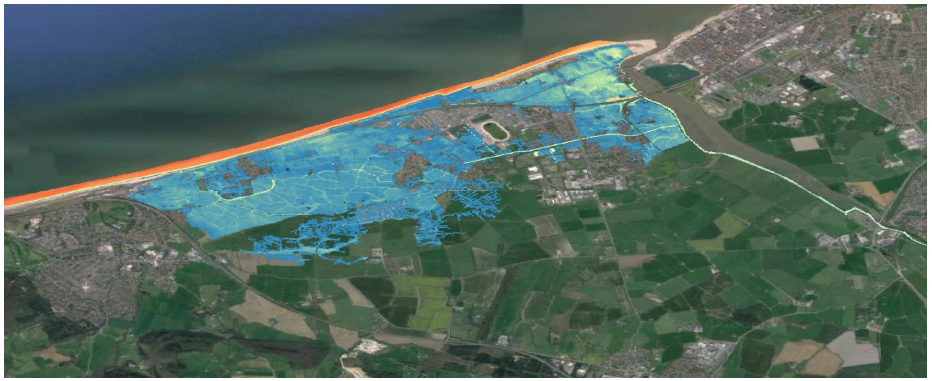
Managing Flood Risk at Llanddulas and Kinmel Bay

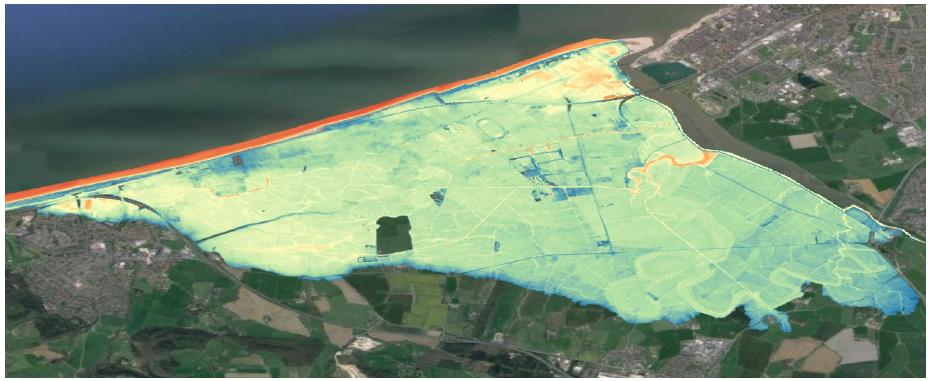
The Existing Scenario — 1 in 100 Year

Present Day (2018)



1872 properties at risk

Climate Change (2118)



4958 properties at risk. A458 and rail at risk.

Preferred Option — 1 in 100 Year

Present Day (2018)

27 properties at risk. Significantly reduced flood depths and extents

Climate Change (2118)

595 properties at risk. Flood depths and extents reduced

The existing defences along this 11km frontage vary, including timber and rock groynes, revetments, seawalls and floodgates. Due to predicted climate change impacts, in the future (2118) the number of properties at risk of flooding along this stretch of coastline increases significantly from 1872 in the present day (2018) to 4958 for the 100 year return period event, taking into account the effects of climate change on sea levels and wave overtopping rates.

The preferred option includes raising of the existing seawall crest height, enhanced rock revetment and periodical beach recharge at Kinmel Bay. At Pensarn, a set back flood wall is proposed, with rock revetment seaward of the existing wall at Belgrano to the east. A set back flood wall is also proposed at Llanddulas Beach, with raising of the revetment crest to the west. The preferred option results in significant improvements to flood risk in Kinmel Bay. The number of properties at risk of flooding under climate change conditions is reduced from 4958 to 595, resulting in significant betterment to flood risk in the area.

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