

RELEVANT PROJECT EXPERIENCE – PROJECT DETAILS

AREA OF WORK	Flood Risk Assessment
Project Title	Flood Risk Assessment Southpark – The Claddagh Galway
Name of Service Provider	Hydro Environmental Ltd.

Project Overview:

Concern over the impact of proposed land contamination mitigation measures involving capping of the playing pitches at Southpark gave rise to Galway City Council commissioning Hydro Environmental Ltd. to carry out an independent flood risk assessment of the Southpark /Claddagh area.



Key Details:

As part of the Flood Risk Assessment Study Hydro Environmental Ltd were requested to investigate a range of Flood Relief measures which incorporates various land remediation measures (capping removal, relocation on site) with the requirement that flood risk to the area was not reduced. A range of flood relief management measures were investigated from do nothing, to soft to hard engineering structural and non-structural measures. From these measures a number of options were developed and costed. The findings were presented to the local Authority and the local residents group who favoured that the storage in Southpark be retained through a combination of onsite redistribution and capping and off-site treatment and disposal. Permanent and demountable flood defence options were also considered along with provision of flood warning for storm surge tides. The flood risk for the area was found to be high (< 25years return period) and that sea level rise would have serious implications in the short to medium term requiring engineered flood defences.

The flood risk assessment reviewed the flood history of the area which saw tidal flooding in 1995 and 1997 resulting in numerous houses, gardens and roadways being flooded. All potential sources of flooding were examined looking at storm runoff, pluvial flooding, combined tide and river flooding and wave climate. A doorstep survey of all adjoining properties was carried out along with a condition survey of existing tidal defences including rock armouring at Mutton Island, earthen embankments and sluice Valves. Consultation was carried out with local residents and interested parties in the area through a number of meetings. The assessment determined existing and future flood risk in the area which included various land remediation options and climate change implications. A principle conclusion of the study found that existing storage at Southpark played a crucial role in reducing the frequency of flooding but for more extreme events it would not prevent flooding.