



GALWAY MAIN DRAINAGE - STAGE 3

Preliminary Report for Galway City and adjacent areas of Galway County

Client: Galway City Council

SUMMARY:

Value: €28.3 million

Status: Substantially Complete

Services Provided:

Planning

Environmental Impact Statement

CCTV/SUS

Network Model

Preliminary Report

Galway City and adjacent areas of Galway County are going through a period of growth and change unprecedented in the City's recent history which led to concerns regarding the adequacy of the infrastructural provision. Nicholas O'Dwyer and Entec, in association with Tobin Consulting Engineers, were appointed to carry out a detailed examination of the wastewater infrastructure.

The entire drainage network of the City was camera surveyed and all manhole locations and interconnections were established. A Flow and Rainfall Survey was carried out to provide real data for verification of the hydraulic model built by Entec. This model enabled optimisation of the network performance particularly in relation to limiting Combined Storm Overflow (CSO) spills and the consequent pollution.

The treatment plant site at Mutton Island is surrounded by a wave wall, which set tight horizontal and vertical constraints in relation to any possible upgrade. Nicholas O'Dwyer put forward proposals to substantially increase the capacity of the plant, from 91,000 p.e. to 170,000 p.e., based on the output from a process model, by modifying hydraulic bottle necks within the system and modifying the biological processes. Additionally, the sludge line was modified to include proposals for a compact sludge drier on site to substantially reduce the volumes of sludge leaving the island

The Environmental Impact Statement (EIS) for the upgrade of Mutton Island WWTW was a large scale task involving water quality, odour and noise modelling; visual and landscape assessments and various ecological and sociological surveys. all of these combined into the EIS enduring the ongoing protection of Galway Bay.

