



DULEEK (NANNY RIVER) FLOOD RELIEF SCHEME

Flood relief scheme to alleviate flood risk

Client: Office of Public Works

SUMMARY:

Value: €1.8 million

Status: Complete

Services Provided:

Hydrological Assessment, Preliminary Report, Public Consultation, Detailed Design, Procurement, Project Management, Performance Review

The town of Duleek in Co. Meath had a long history of periodic flooding that affected large areas of the town leading to extensive damage and remediation costs. Nicholas O'Dwyer were appointed as Consulting Engineers to develop a flood relief scheme to alleviate the flood risk.

Following a detailed hydrological assessment that included the use of a HEC-RAS computer simulation model, a flood protection scheme of up to 200 year return period was developed. This followed a detailed cost-benefit assessment to identify the best value for money solution. The main elements of the scheme included earth embankments, concrete retaining walls and overflow culverts. A low lift flood relief pumping station was also installed to allow discharge of surface run-off from low lying areas protected by the scheme. The contract was completed, within budget and on programme.

While various elements of the scheme were tested during the commissioning phases, the scheme could only be properly assessed during a flood event. On 5th January 1999, just 7 months after the scheme was complete, a significant flood event occurred and all aspects of the scheme operated successfully saving the town from substantial damage.

Subsequent flooding events have occurred since then and the scheme has performed successfully.



Nicholas O'Dwyer
CONSULTING ENGINEERS