

Greater Dublin Strategic Drainage Study



Foreword by Mr. John Fitzgerald Dublin City Manager

The economic success of the Greater Dublin Region has led to very significant growth of the city and surrounding counties. The drainage and stormwater infrastructure is stretched to keep pace with the increased demand for new serviced land for housing, commercial developments and industry. The capacity of both the foul and surface water drainage systems within the Dublin Region requires a very significant capital investment to ensure that future growth and development is delivered in a sustainable fashion which protects the environment.

The Greater Dublin Strategic Drainage Study was commissioned in 2001 to carry out a strategic analysis of the existing foul and surface water systems in the local authority areas of Dublin City, Fingal, South Dublin, Dun Laoghaire Rathdown and the adjacent catchments in Meath, Kildare and Wicklow.

The objectives of the study were to identify the policies, strategies and projects for developing a sustainable drainage system for the Greater Dublin Region.

The study examined the new infrastructural requirements to 2031 in three time frames:

- The existing situation:- This examined drainage requirements for all development to year 2002, this year being the study baseline.
- The short term situation:- This examined drainage requirements for all anticipated developments due for completion to year 2011
- The long term situation: - This identified the broad drainage requirements to cater for anticipated and/or assumed development in the Greater Dublin Region to year 2031.

A Population and Land Use Study to 2031 was undertaken with reference to the Regional Planning Guidelines incorporating the National Spatial Strategy in order to estimate the long term requirements of the region. This study has indicated a dramatic predicted growth in population from 1.2 million in 2002 to just over 2.0 million in 2031 for the region.

The long-term strategic drainage proposals are based on providing the infrastructure required for the anticipated sustainable development of the region as determined in accordance with the planning guidelines of the various Councils.

The new infrastructure recommended by the study has been estimated at €2.4 billion and the main new strategic components are:

- Upgrade the existing drainage system
- Upgrade existing treatment plants to their ultimate capacity
- Construct new regional treatment plant in Fingal
- Provide new orbital sewer to western suburbs of Dublin and adjacent catchments in Meath and Kildare

Local authorities now face increased challenges such as climate change and new environmental legislation while responding to the demands of their customers. The characterisation report prepared under the Water Framework Directive shows that 82% of the rivers in the region are at risk or probably at risk from pollution and may not meet the new legal requirements of the EU Water Framework Directive by 2015. There is an ongoing need to promote continuing development whilst protecting our environment. The Greater Dublin Strategic Drainage Study undertook a review of local authority drainage practices in five key areas:

- New Development
- Environmental Management
- Climate Change
- Inflow/ Infiltration and Exfiltration
- Basements

New policies have been drawn up in all of these areas and incorporated in to the Development Plans of the local authorities. A set of detailed technical documents has been prepared to effect the implementation of these policies. These are detailed in the accompanying documents. Implementation of these policies is vital to ensuring the ongoing sustainable development of the Greater Dublin Region.

These documents are part of a suite of documents produced as part of the Greater Dublin Strategic Drainage Study. This study has been funded by the Department of the Environment, Heritage and Local Government under the National Development Plan 2000-2006.

The Study was carried out by the Dublin Drainage Consultancy, a joint venture between Hyder Consulting, and Dublin based firms, PH McCarthy Consulting Engineers and RPS-MCOS (in association with HR Wallingford) and was project managed by Dublin City Council. The Consultancy included specialists from Wallingford Software for GIS advice, University of East Anglia for Climate Change aspects, University College Dublin for coastal water quality modelling and Dublin-based town planners, Brady Shipman Martin.

I wish to acknowledge the dedication of the staff in the seven local authorities for their commitment in reviewing the documents. A special word of thanks goes to the local authority liaison group who provided the vital communication link between the study team and the local authorities, obtained the necessary information for completion of the study and ensured that the views of each local authority were taken on board.