

Pluvial Study Final Report.

EU IVB FloodResilientCity Project

Dublin is at risk from a number of flooding hazards and since 2002, managing all of these flood risks and combinations thereof is known as the Dublin Flood Initiative (DFI). The DFI has as its ambition to identify the risks, the areas at risk, the times when that risk might be highest and the appropriate response and mitigation measures at Municipal level and at local community and household level. The DFI addresses those flood risks and develops a unified and fully integrated flood risk management strategy. This flood risk management strategy is incorporated within the National Framework for Emergency Management and covers hazard identification/preparedness/risk assessment/response/recovery and spatial planning/ climate change adaptation and early warning systems. It also aims to raise the level of awareness of all aspects of flood risk management among policy makers, professionals and the general public. The DFI also recognises specific aspects of flood risk associated with basement properties and underground car parks. Dublin City Council (DCC) has initiated a number of projects to address these hazards, namely (not an exhaustive list but indicative):

- **Coastal flooding of areas adjacent to the coast or tidal estuaries.**
- **Fluvial flooding due to river bank overtopping and/or flood defence collapse.**
- **Drainage flooding due to failure or inadequacies or flow exceedance (surcharging) of the drainage system.**
- **Dam Break flooding associated with dam failure, either actual failure or high discharge released when in danger of over topping. Rigorous inspection procedures are designed to minimise this risk.**
And most recently.....
- **Pluvial flooding resulting from surface water runoff and ponding in low spots following intense rainfall.**

The first four flood hazards have already been addressed by previous DCC strategic studies and investment programmes. The remaining hazard, pluvial flooding, is being addressed through the Dublin FRC project.

Dublin City Council recognised that to successfully address the many types of flood risk across Dublin, transnational knowledge and shared experience at a European level were required. Dublin has benefited from being a participant in a number of EU Interreg transnational projects. This involvement started with the EU Interreg Programme IIIB SAFER project, which addressed coastal flood risk. Dublin is currently participating in the EU Interreg IVB. Programme 2007/13 as one of eleven partner organizations, forming part of the Interreg IVB flood risk management good practice project; FloodResilientCity (FRC) <http://www.floodresiliency.eu> . The programme aims to promote an innovative approach to flood risk management and prevention based on the concept of the 4A's: Awareness, Avoidance, Alleviation and Assistance.

This pluvial study report is presented in 5 interlinked volumes including a **Non Technical Summary**. Volume 3 includes two codes of practice, a) Spatial Planning and Building Regulation and b) Flood Resilience and Adaptation Measures. The report is presented under the following headings:

1. **Rainfall and Forecasting**
2. **City-wide Pluvial Flood Risk Assessment**
3. **Pluvial Flood Risk Management**
4. **Detailed Pluvial Flood Risk Assessment of Pilot Areas**
5. **Pluvial Flood Alerting and Warning System**

The city wide pluvial flood hazard and risk maps are annexed in volume 2. DCC through the FRC project and with assistance from the Scottish Flood Forum has initiated the establishment of a number of community resilience groups which will be known as the "Dublin Flood Forum". Pilot community groups are currently being established in the 5 city administrative areas. The FRC Project office can be contacted by email frc@dublincity.ie