Flood Risk Management
In Ireland

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FLOOD RISK MANAGEMENT IN IRELAND

- FLOOD RISK IN IRELAND
- FLOOD RISK MANAGEMENT POLICY
- THE ‘CFRAM’ PROGRAMME
- FUTURE CHALLENGES
FLOOD RISK IN IRELAND
Coastal Flood, February 2002 – Dublin
Appx. €60m Damages
FLOOD RISK IN IRELAND

November 2009

>1,600 Properties, Insured Losses Circa €250m

Athlone, River Shannon
FLOOD RISK IN IRELAND
6th February 2014
>€100m Damage to Public Infrastructure
FLOOD RISK IN IRELAND
Winter 2015/16
>500 Properties (∼ 2,000 Properties under Threat)

River Shannon
FLOOD RISK IN IRELAND

• RECENT FLOOD EVENTS
  – November 2009: >1,600 Properties, Insured Losses ≈€250m
  – October 2011: Nearly 1,700 Properties, Insured Losses >€125m
  – June 2012: >€50m Insured Losses
  – Winter 2013/14 Storms: >€100m Damage to Public Infrastructure
  – Winter 2015/16: >500 Properties (≈ 2,000 Properties under Threat)

• EXPECTED INCREASE IN RISK UNDER CLIMATE CHANGE
  – Sea Level Rise (Coastal Cities), Wetter Winters, Warmer Summers
FLOOD RISK MGT POLICY

• HISTORICAL FOCUS ON LAND DRAINAGE
  – ‘Land Commission’ Embankments (1800’s)
  – Drainage Districts (Acts 1925, 1929) – Local Drainage Schemes
  – Arterial Drainage Act, 1945 – Catchment Drainage Schemes

• ARTERIAL DRAINAGE AMENDMENT (1995) ACT
  – Local, Urban Flood Protection Schemes
    • Completed: 38 Schemes Protecting ≈7,700 Properties, >€1bn Benefits
    • In-Hand: 11 Schemes in Construction, 26 Schemes in Design / Planning
    • Minor Works: €38m Approved for ≈600 Local Schemes (Since 2009)
FLOOD RISK MGT POLICY

• NATIONAL FLOOD POLICY REVIEW, 2004
  – ‘Blue-Skies’ Review by Inter-Dept. Group of National Flood Policy
  – Wide Range of Recommendations:
    • OPW ‘Lead Agency’ to Co-ordinate Flood Risk Management
    • Pro-Active, Catchment-based Approach
      – Programme of Flood Mapping
      – Preparation of Flood Risk Management Plans
    • Emphasis on Flood Risk Management, Rather than Just ‘Protection’
      – Prevention
      – Protection
      – Preparedness and Resilience
FLOOD RISK MGT POLICY

- EU ‘FLOODS’ DIRECTIVE, 2007
  - KEY REQUIREMENTS
    - Preliminary Flood Risk Assessment (PFRA)
    - Flood Maps
    - Flood Risk Management Plans
  - OTHER PROVISIONS
    - Coordination with WFD Implementation
    - Trans-Boundary Co-operation
    - Public Dissemination / Engagement
  - 6-YEAR REVIEW CYCLE
THE ‘CFRAM’ PROGRAMME

• THE NATIONAL CATCHMENT-BASED FLOOD RISK ASSESSMENT & MANAGEMENT PROGRAMME
  – Developed to Implement 2004 National Flood Policy
    • Flood Maps
    • Flood Risk Management Plans
  – Deliver on Requirements of 2007 EU ‘Floods’ Directive
  – Pilot Studies:
    • 2005-2011: Lee, Dodder, Fingal-East Meath
  – National Programme: 2011-2017
THE ‘CFRAM’ PROGRAMME

- FOCUS ON 300 AREAS FOR FURTHER ASSESSMENT (‘AFAs’)
  - Communities Subject to Potentially Significant Flood Risk
  - Identified through the ‘PFRA’
THE ‘CFRAM’ PROGRAMME

- FLOOD MAPPING
  - Extent, Depth, Velocity, ‘Risk-to-Life’, Flood Zone & Various Risk Maps
THE ‘CFRAM’ PROGRAMME
THE ‘CFRAM’ PROGRAMME

• FLOOD MAPPING
  – Maps Produced for up to 8 Flood Event Probabilities / Magnitudes:
    • 50% up to 0.1% Annual Probability
  – Climate Change Scenarios: 2 Representative Future Scenarios
  – Benefits:
    • Preparedness & Resilience
    • Emergency Response
    • Sustainable Planning
THE ‘CFRAM’ PROGRAMME

• FLOOD RISK MANAGEMENT PLANS (FRMPs)
  – 29 FRMPs at River Basin Level
  – High-Level Measures
    • Prevention
      – Sustainable Planning and Development & Urban Drainage Systems, Home Relocation, Land Use / Natural Flood Management
    • Preparedness & Resilience
THE ‘CFRAM’ PROGRAMME

• FLOOD RISK MANAGEMENT PLANS (FRMPs)
  – Community-Level Measures
    • Appraisal of Options for Flood Risk Management Measures
      – ‘Line & Level’ Design
      – Consideration of Climate Change Adaptation
      – Costed and Subject to Economic Cost–Benefit Analysis
      – Appraisal using ‘Multi-Criteria Analysis’
      – Environmental Appraisal
      – Extensive Public Consultation (National and Community-Level)
    • Flood Relief Schemes Proposed for ≈120 Communities
FUTURE CHALLENGES

- IMPLEMENTATION OF CAPITAL PROGRAMME
  - ≈160 Flood Relief Schemes, >€1bn
- RURAL RISK
- CRITICAL INFRASTRUCTURE
- CLIMATE CHANGE ADAPTATION
- NATURAL FLOOD MANAGEMENT
- PUBLIC AND STAKEHOLDER ENGAGEMENT
  - National Level
  - Community Level
FUTURE CHALLENGES

• PROGRESS MADE SINCE 1995
  – Protection
    • Flood Relief Schemes Providing Safety to Communities and Citizens
  – Prevention
    • Policies to Ensure Sustainable Development, Informed by Flood Mapping
  – Preparedness and Resilience
    • Empowering Communities and Citizens to Recover from Flood Events
  – FRMPs
    • Set Effective, Sustainable Strategy for Flood Risk Mgt

• SIGNIFICANT WORK DONE – MUCH STILL TO DO!
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