Temporary/Relocatable Flood Barriers

Summary

This FRM guideline provides advice on the limits of the use of temporary/relocatable flood barriers and the investigation of their use in floodplain risk management (FRM) studies.

Introduction

There are a number of erectable flood barriers that have been identified as being able to provide temporary flood protection during an event.

All of these systems will have the same hydraulic impacts as permanent levees placed in the same location for the same level of protection (until they fail in a different manner). Therefore before making a decision on their use they need to be assessed with the same rigour as permanent structures.

In addition, temporary measures introduce extra issues that need to be considered in relation to their use including their storage, maintenance and asset management, and logistic issues in relation to:

- accessibility during an event
- handling, transport and erection limits and equipment requirements and availability
- availability, training of staff and
- time for collection, handling, delivery and erection relative to effective warning time

Recommendations

Temporary barriers are not a permanent solution to flood problems and cannot replace proper planning or FRM practices.

Their use in public schemes should be assessed for intended locations as part of FRM studies with the full rigour of a permanent solution plus with consideration of the extra issues identified above. Where these become part of the management plan for an area their use should be identified in the plan along with how the issues above are to be addressed.

Temporary flood barriers should be excluded from floodways, tops of levees, designed levee overtopping areas, and the vicinity of flood control structures or devices, unless they can be shown from appropriate modelling to not adversely impact other properties by their use or failure in the full range of flood events in a FRM study. Their use should therefore generally be limited to backwater areas, or areas of little active flow.

Their private use should be limited to dealing with existing flooding problems and should, where possible, be considered and addressed in FRM studies and plans. Where not addressed in FRM studies or plans they should be limited to backwater or inactive flow areas and should consider the potential to impact upon nearby properties and the intended users should consider common law requirements in relation to adverse impacts upon others.