



# Managing local flood risks in rural areas: experiences of Lead Local Flood Authorities

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# ADEPT

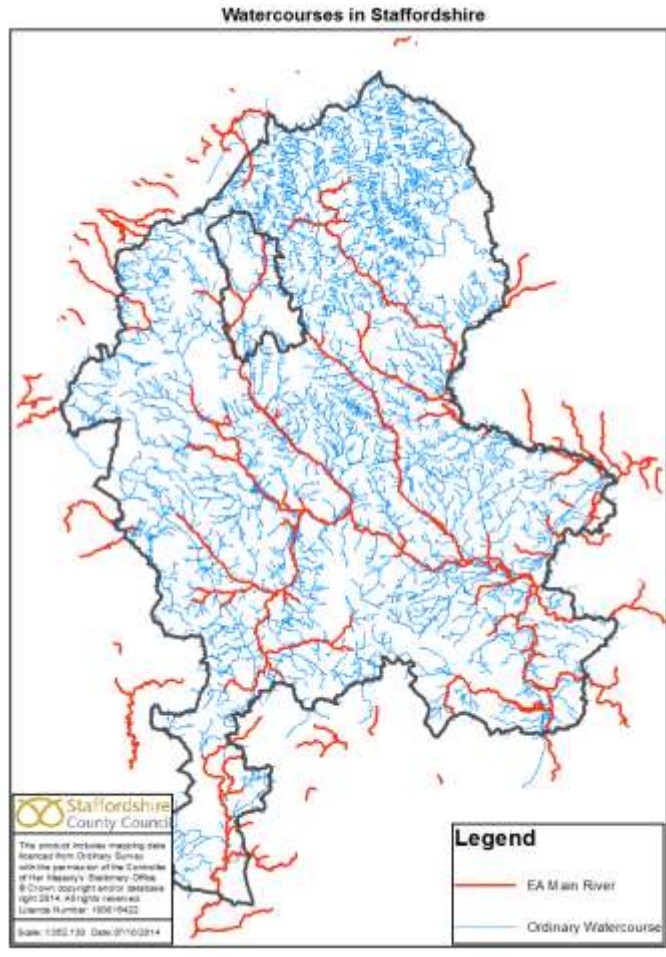
ASSOCIATION OF DIRECTORS OF ENVIRONMENT, ECONOMY  
PLANNING AND TRANSPORT

- 70 local authority, 15 LEP and 10 corporate partner members
- Established in 2010 and previously the County Surveyors' Society
- Influences government policy and represents public sector interests
- Remit includes
  - growth & devolution
  - transport & communications
  - planning & housing
  - environment including waste, water management, energy

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# What is a LLFA?



# Rural flood risk challenges

- Rapid runoff
- Peri urban issues
- Ad hoc development over the 'village sewer'
- Drainage infrastructure – ageing, fragmented & in poor condition
- Lack of clarity and lots of assumptions

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# Urban v. Rural

- Lower property numbers but:
  - How frequently does it flood?
  - How complex and severe is the flooding?
  - What is the impact on that community?
  - Community engagement
  - Agricultural businesses
  - Infrastructure impacts

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# Social characteristics

- Not represented well by commonly used measures, which do not pick up the very fine grained nature of social disadvantage
- Ethnicity, age, income and property types all have a slightly different profile for rural communities – not fully represented in appraisal for schemes

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# Funding schemes

- National funding for schemes is based on payment for outcomes
- Regional funding allocated by RFCCs
- Infrastructure funding is strongly linked to growth: this can be a challenge for rural areas
- Catchment based approaches

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# What do local schemes look like?

- “Traditional” schemes often impractical, low cost: benefit and unfundable
- Is a capital scheme the answer?
- Property Level Protection?
- Local measures?
- Natural Flood Management?
- Community engagement?





# Challenges for rural schemes

- Having a cost: beneficial scheme
- Having full funding for a scheme: who makes up the short fall?
- Should beneficiaries contribute?
- Small schemes and the wealth of evidence
- Local government funding for FRM varies
- Need to link into wider opportunities

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# Aveton Bishop, Devon



- 3 properties
- Severe, frequent flooding
- Culvert enlargement
- Parish Council and the affected properties contributed towards the scheme

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# Branscombe, Devon



- Small steep catchment
- Frequent flooding of up to 20 properties and the pub
- £180,000 scheme funded by DCC highways and FRM, Grant in Aid





# Endon, Staffs



- 67 properties, vets, pub, garage and A road
- Steep rural catchment
- NFM plus local measures and some PLR
- Scheme cost £450k
- Funding situation is complex

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# Natural Flood Management

- Holding water back in rural areas
- Pickering 2015
- Stone and Leekbrook
- How is it funded? How is it appraised on a level playing field?
- Getting landowners on board



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# Community Resilience

- Working with Parishes
- Supporting Flood Action Groups
- Enabling communities to take action:
  - Locally delivered solutions
  - Community flood plans
  - Road closure schemes
  - Maintenance and monitoring



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# Local delivery

- Luton, Devon: surface water diversion
- Goveton, Devon: scheme designed by community and co-funded
- Endon Bank, Staffs: Parish delivered
- Marchington, Staffs: Community Road Closure Scheme
- Leekbrook, Staffs: landowner constructed NFM measures

# The Somerset Levels

An aerial photograph of the Somerset Levels in England, showing a vast expanse of brown, flooded land. The landscape is a patchwork of rectangular fields, some of which are completely submerged in water. A small settlement with several buildings is visible in the center of the image. The sky is overcast and grey, and the overall scene conveys a sense of desolation and environmental impact.

## 2013-14 floods

- End of December 2013 until middle of March
- 14 storms
- Only 2 days without rainfall
- Coastal surges



## The effect

- 600 homes affected
- 17,000 acres flooded
- 81 road closures
- Major incident called
- The community comes together
- Cost Somerset up to **£148m**

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# Somerset Rivers Authority

- Somerset communities and businesses want *a higher level of protection* than is affordable from existing sources
- Needs additional funding raised through a local precept (£2.8m/ year)
- SRA manages Action Plan, delivered by partners
- Work areas include dredging & river management, land management, urban water management, resilient infrastructure and building local resilience

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With special thanks to Devon, Somerset, Northumberland and Warwickshire County Councils, the Somerset Rivers Authority and the National Flood Forum

**ANY QUESTIONS?**

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