



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

**Hannah Burgess, Flood Risk Manager**

September 2017

*the knot unites*



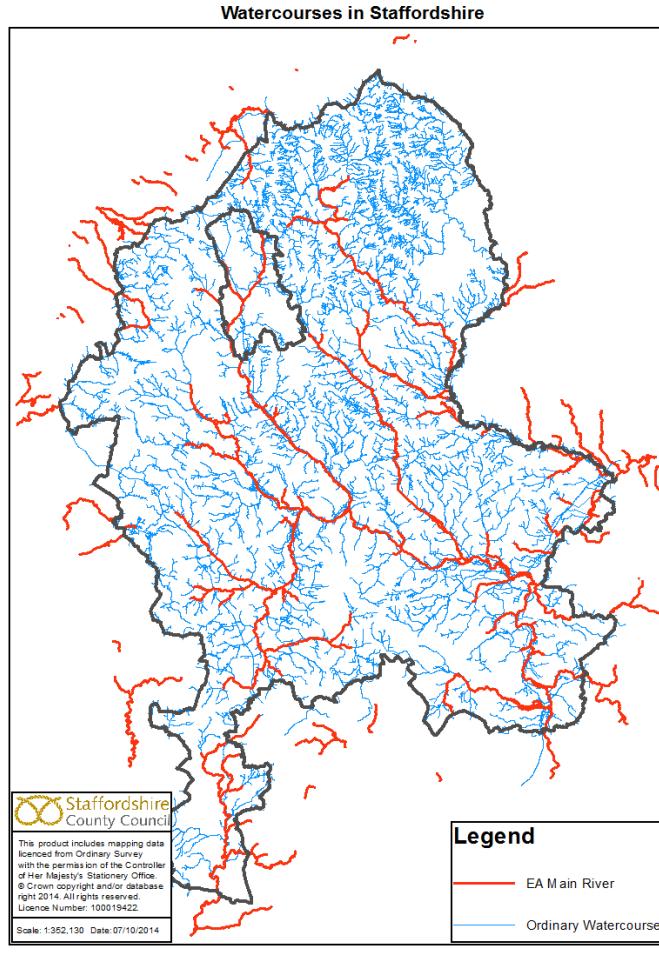


- 70 local authority, 15 LEP and 10 corporate partner members
- Established in 2010 and previously the County Surveyors' Society
- Influences government policy and represents public sector interests
- Remit includes
  - growth & devolution
  - transport & communications
  - planning & housing
  - environment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

*the knot unites*



# 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

*the knot unites*



# 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

*the knot unites*



# 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
- 

*the knot unites*



# 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

*the knot unites*



# 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

*the knot unites*



# Aveton Bishop, Devon



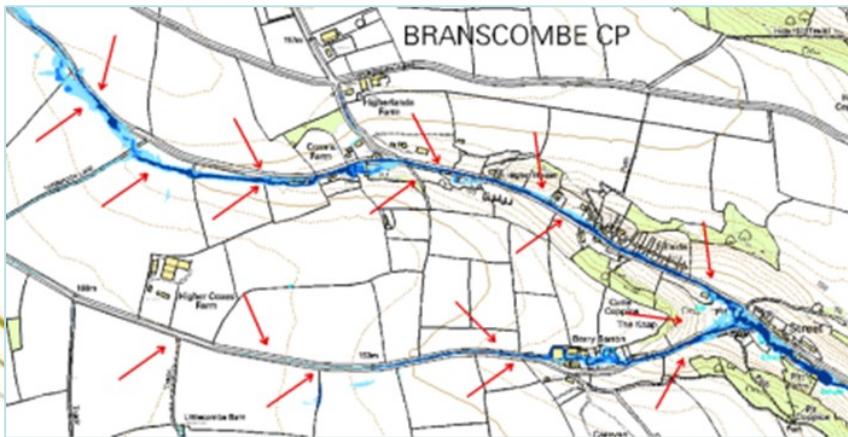
- 3 properties
- Severe, frequent flooding
- Culvert enlargement
- Parish Council and the affected properties contributed towards the scheme

*the knot unites*

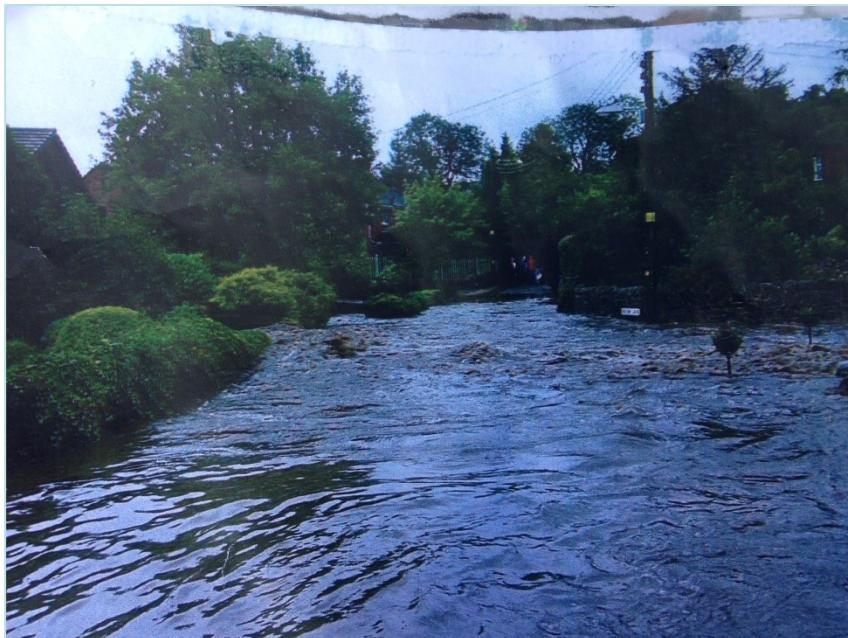
# Branscombe, Devon



- 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

*the knot unites*

# 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



*the knot unites*

# 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



*the knot unites*

# 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

An aerial photograph showing extensive flooding in rural areas. Large fields are submerged in brown floodwater, with some green land visible where water has receded. A small cluster of buildings is visible in the center-right. The sky is overcast.

# The Somerset Levels

# 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**

*the knot unites*



# 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

*the knot unites*



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

# ANY QUESTIONS?

*the knot unites*

