

The Scottish Road Trip

Eddleston Flood Management (no official title)

Site visit with Hugh Chalmers, Tweed Collaborative Action Co-ordinator

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Project background

Project is in early stages of investigating and developing options



- Eddleston Water catchment – tributary to Tweed, village: Eddleston, nearest town, Peebles.
- Initiated by Tweed Forum - <http://www.tweedforum.com/home> – constituted body, 4 directors
- Funded by Council, SEPA, SG

Who is doing the project – SG, SEPA, Scottish Borders Council (SBC), FC, Tweed Forum (TF), Dundee University

- *What is the objective of the project?* Geomorphological improvement, flood reduction
- *What stage are they at?* Early stages, started 9 months ago, ongoing project. Dundee University about to report back. (Hugh to forward copy of the Report once complete).

Policy context:

- *What is the relationship between the project and the Flood Risk Management Act?* Pilot for SG, Demo project
- *Is the work part of a formal flood prevention scheme?* Not currently Council focus is in other areas but communities of Eddlestone and Pebbles concerned about flooding hence Council support in looking at natural flood management approach via Tweed Forum.
- *What role do SEPA and Scottish Borders Council play (as responsible authorities)?* Partners
- *If the project is not directly driven by FRMA or FPS, what is the driver?* Driven by Tweed Forum / Tweed AAG - RBMP
- *How are they taking account of climate change within the project? What evidence/rule of thumb do they use?* Talking to farmers about change in weather patterns. Dundee University - research
- *How does the project relate to RBMP and the goal of GES?* See above
- *Is the area under the Habitat's directive – and if so, how does the project relate to achieving favourable condition?* Part of SAC (Tweed)

General context:

➤ See also Dundee Uni report

- *What is the mix of farming to other economic activities in the catchment?* Farming, forestry, some quarrying. Farming dominant land use.
- *How important is farming to the local culture and sense of place identity?* Quite important

- *What kind of farming is done here?* Livestock/grazing, improved & rough, silage mainly on floodplain, where there is very limited arable. Cattle, sheep, slurry (no straw as virtually no arable). Large scale egg farmer – John Campbell, Glenrath Farms.
- *Is farming thought to be a polluting activity or something that preserves the environment (by the general public?) And what do most farmers in the area think?* Farmers are mostly seen as champions of the environment, there is no ecological problem in burn, so farmers seen as preserving/improving environment.
- *What are the most important challenges facing farming in the area? (And does flooding or diffuse pollution come anywhere on this list?! – what about climate change?)* Biggest challenge is economic – mainly owner/occupier, small farms, no great financial reserves.
- *Do farmers think flooding is a problem in their area, and if so, do they think they should manage it?* No & no. Flooding is restricted to village & Peebles, not seen as a problem on farmland
- *Do they think that they should increase the drainage – clear out the burn – or slow the flow? If there are differences in views, why is this?* Some do think clearing out is the solution (similar to Tarland views) Hard to change historic practice – one-to-one talks important
- *What previous water management interventions, if any, have been done in the area? What was the outcome? What is the general feeling about these projects?* Burn straightening in 1850s when railway Peebles-Edinburgh was built. No recent works. Some bunding in Eddleston village, not sure of age.
- *Have the project team worked with these stakeholders before? If so, for how long?* Hugh has been working with landowners for 9 months

Flooding interventions:

- *What is the scale of the problem – how much damage is done, to life or to property downstream or to the farmers themselves?*
6 cottages affected in Eddleston village, more substantial damages in Peebles. No known effect on farmland.
 - *Cost – benefit analysis of the scheme* – not at this stage yet
- *Are these lives or properties part of the rural social network, or are they different, urban networks?* Village/urban

- *When was the last flood?* March 2010 – land flooded after rapid snow melt.
- *What is the worst flood that has happened in living memory and when was this? Is this expected to get better or stay the same?* 1954. Expectations are for worse to come.
- *What are the measures being used for dealing with the flooding?* Wetlands, riparian woodland planting, replacing earthbanks, remeandering, washlands, leaky barriers
- *Opportunity to compare theirs with ideas we have - why did they choose this measure and not another one?* They are still looking at options, choices are dependent on farm & situation
- *What is the measure designed to deal with – 1:5 or 1:200 year flood?* Informal at the moment, 1 : 5 – 15 event
- *Has the measure been tested in high flows and what was the result?* Not yet tested. Looking at 2D modelling near Eddleston Village – Mike Bunnell
- *Who owns the land? Who owns the measure? Are there tenant/estate complications? What happens if land is sold or rented?* Land owned by farmers, mainly owner occupier. One absentee landowner of large estate, managed by farm manager. Selling/renting not addressed
- *Who has responsibility to maintain the measure in good working order? What checks is there that measure will still work? What are the requirements for maintenance and who does it, what is the legal arrangement?* Monitoring done by Dundee University, £250k from SG. Other details not worked out yet. SBC property section will do legal negotiations.
- *What compensation mechanism was/will be used? Who paid?*
 - *If voluntary, what was the motivation?* Nothing has been negotiated at present. Likely to be looking at one-off council compensation payment.
- *What was the proportion of fixed v variable costs in building the measure? How much was capital, how much was legal/planning costs, how much build costs, and how much ongoing maintenance?* n/a at moment
- *How long does the area get flooded for? To what depth? When?*
 - *What is the affect of the measure – how much additional time on fields, depth, frequency of flooding?*
 - *How do they get water out of river and back in again?*

Village gets flooded approx every 10 years, for ½ day, water goes down naturally. Flooding caused by a mix of surface and ground water. Farmland gets flooded every 2 – 3 years.

- *What are the other benefits (to farming, to environment, others?)*
 - Animal Health: Fencing off wet areas where fluke & sheep drowning may be a problem.
 - Biodiversity: Might be part of SRDP proposal with wider measures & associated biodiversity/landscape benefits. Habitat improvements from e.g. re-meandering
 - RBMP Targets
 - Habitats Directive – SAC improvements

- *What are the other disbenefits?*
 - Biosecurity issue raised by egg producer – ponds close to free-range poultry sheds may attract wildfowl: bird flu

- *What do they understand by Natural Flood Management?*
 - *About slowing overland flow before reaches the river?* - Yes
 - *About slowing flow in the river before it reaches downstream?* - Yes
 - *Links to other form of flooding (groundwater break through; pluvial flooding)* - Yes

- *Have the options been shown to and discussed with any of the local stakeholders (farmers, community leaders, public, land-owners)? If yes, when? How? What was the outcome?* Early days yet. Hugh has done 1 : 1 visits, no public meeting held as yet, one talk to (poorly attended) community council. Concentrating on seeing key farms with key features at the moment.
 - *Have they tried using flood risk maps? Climate metrics?* No.
 - **Supply Tarland maps and info used e.g. in workshops to Tweed Forum**

- *Who has designed these measures? On what basis (using models or demonstration sites)? Where do these engineers/planners etc live and work? Do they know the catchment? Have they met or worked with the farmers before?* Dundee Uni – baseline studies, Council, CBEC produced specific design for Eddleston, looking at canalised area of burn & flood storage area/washlands

- *What kind of farmers and farming will be or are being affected by the interventions?*

- *(Do they own or rent the land? Do they grow crops or raise livestock – in other words what is the opportunity cost of the temporary loss of land to flooding?)* Farmers mainly own, and raise livestock on a grassland based system. Forestry mostly owned by FC. No analysis of costs done yet
- *What information and advice is available to farmers who want to act as water managers – who advises them? What evidence do they have?* Hugh can advise, SRDP & other funds (e.g. wind farm mitigation) as incentives
- *What would they advise about getting farmers to act as for flood risk managers?* 1 : 1 visits via Hugh important

Photos:



Eddleston Water Upper Catchment – SRDP opportunities for wetland creation/management, riparian planting



Eddleston Village – area for potential washlands – silage fields, burn along dotted gorse bushes along centre of pic



Eddleston Village – Bunding in village – burn to right floods cottage in background



Eddleston Village – guttering for flood water recently installed (year?) – whole row of cottages floods - bund of pic above is at far end of row.