West Cumbria
Catchment Partnership

Summary of West Cumbria Catchment Partnership Meeting

17th July 2019

Attendees:

22 people attended the workshop

Alastair Cook – Keswick Flood Action Group
Alice Senior – United Utilities
Andrew Harrison – Cumbria County Council
Kerry Morgan – National Trust
Caitlin Pearson - West Cumbria Rivers Trust
David Bechelli – Copeland Borough Council
David Kennedy – Environment Agency
Doug Coyle – Cumbria County Council
Gavin Murray – Cumbria County Council
Jack Abernethy – River Corridors Group/Derwent Owners Association
James Anderson-Bickley – Forestry Commission
John Gorst – United Utilities
John Malley – National Trust
Louisa Simpson-Brown – United Utilities
Mel Fletcher – Natural England
Neville Elstone – Cumbria Woodlands
Nick Chappell – Lancaster University
Paul Barnes – Community/Farming representative
Pete Fox – Forestry Commission
Robert Frewen – CLA
Tim Duckmanton – Lake District National Park Authority
Vikki Salas - West Cumbria Rivers Trust

Meeting presentations are available on the attached Powerpoint slides. Any questions and discussions are summarised below.

Catchment Partnership Updates

Vikki Salas (West Cumbria Rivers Trust) See attached slides

Funding for CaBA Catchment Partnership hosting was recently confirmed for 2019/20 but this year there is no additional funding from the NW Regional Flood and Coastal Committee as was available over the last two financial years for 'Catchment Management Group' hosting. This inevitably means less resource for some activities but focus will be given to maintaining quarterly Catchment Partnership meetings, the catchment plans and projects pipeline and to facilitating development of new projects.

Requirements of CaBA partnership hosting this year include:

- Undertaking a self-evaluation and stakeholder analysis;
- Actively ensuring the Catchment Partnership membership is inclusive and appropriate for the local catchment circumstances;
- Seeking longer-term funding from more diverse sources for the CaBA hosting role;

- Supporting the Environment Agency's engagement for river basin management planning by developing catchment level engagement plans;
- Maintaining an online catchment action plan.

A report on the river basin management planning 'working together' consultation, which the West Cumbria Catchment Partnership responded to, is available online at: https://www.gov.uk/government/consultations/river-basin-planning-working-together. The next stage of the consultation, 'challenges and choices' will be open from October 2019 to April 2020.

United Utilities drainage and wastewater management plan is out for consultation and they are encouraging involvement from partner organisations.
Action: Louisa Simpson-Brown to present the plan to the partnership at the next meeting.

Funding updates

Slow the Flow Local Levy funding – Dave Kennedy (Environment Agency)

Local levy funding is available for small scale NFM projects. There is a £50k from underspend available for projects that can be delivered this financial year (before March 2020) \and funding available for next financial year but no certainty about how much this will be. The application deadline for both years is 16th August.

The funding can cover partnership work and scoping but is focussed on delivery of interventions, particularly in small catchments. Community groups or organisations (including Cumbria County Council) are eligible to apply.

There is potential for a project on Tommy Gill, Cockermouth to be funded. Andrew Harrison (Cumbria County Council) is to speak to landowner and follow up with WCRT for a joint application if the landowners are interested.

Project updates

Coledale tree planting

Following on from questions raised at the last partnership meeting, it was identified that there was a need for a discussion between partners on the planting scheme on Coledale Common regarding the lessons learnt and potential next steps.
John Malley (National Trust) and Pete Leeson (Woodland Trust) provided background information on the project. Initially the project was planned with the aim of helping to address issues of sedimentation and turbidity in Coledale beck from landslides and mine spoil. Livestock were excluded from the river banks and valley sides and since Storm Desmond a further landslip area has been fenced, which is now beginning to recover although there is still significant gullying.

Neither the scheme that was proposed to the Commoners nor the Secretary of State permission for fencing identified any tree planting. However, as the fencing exclosure presented a significant opportunity, some planting was undertaken particularly around landslip areas. The first 4,000 trees were planted without guards but the majority were lost. A further 4,000 have now been planted. There have been problems with stock ingress and management of the site is very difficult. Deer

were not thought to be a significant issue in Coledale as there is not a large population and some nibbling by deer can be beneficial to tree growth as it increases root growth. However, red deer are increasing and can be detrimental. This site did not have agreement for deer fencing and permission for deer fencing is very difficult to obtain on a Common. John Gorst (United Utilities) has received Secretary of State permission for deer fencing but permissions will depend on the location.

Despite difficult growing conditions, the trees are starting to take and transform the area. The ground flora is very diverse and growing well and moss is establishing. A seedbank is present and natural regeneration will occur but this will take time. Durham University have been monitoring the area and Nick Chappell (Lancaster University) said it would be very interesting to look at the change in hydrology as a result of the exclosure.

There has been 'mission creep' with the project in that it was initially a fencing project to stabilise landslides but is now being viewed as a NFM tree planting project. The project was funded as a scrub scheme under Higher Level Stewardship so woodland creation is not an option under the current HLS agreement but could be feasible in a future scheme (current agreement finishes in 2020). If woodland creation is the focus of the scheme going forward, it needs redesign; a single scheme cannot be expected to deliver on all objectives, particularly within the confines of an agri-environment agreement. It is therefore important to manage community aspirations.

There are many difficulties with the site but it is fairly typical of other areas where we want to work so it is important to learn from the experiences in Coledale. There is great potential for this large area of excluded common to deliver a wide range of benefits. The partners and Commoners need to establish the future aspirations for the area. There is uncertainty about how the Commoners want to progress which will depend on future agri-environment payments.

It was agreed that a task group of the partnership should be formed to summarise learning and start to think about future aspirations and resourcing for Coledale. Partners that expressed an interest in being involved were: Pete Leeson (Woodland Trust), Neville Elstone (Cumbria Woodlands), John Malley (National Trust), James Anderson-Bickley (Forestry Commission) and Paul Barnes (Commoner). It was also identified that Jean Johnson (Natural England) needed to be involved.

Action: Neville to set up a working group meeting.

Q-NFM – Nick Chappell – Lancaster University

See attached slides.

Q-NFM is part of a national NERC funded research programme with the aim of modelling the effects of natural flood management features at a large catchment scale with realistic scenarios. The outputs will primarily be modelling hydrograph changes as a result of NFM interventions. To reduce model uncertainty, the project is undertaking a large amount of monitoring to improve the accuracy of model input parameters. One finding from the work so far is that the atmosphere is not always saturated during large storm events and there is therefore significant capacity for evapotranspiration throughout the duration of a storm event. This finding will improve modelling of the effects of afforestation on storm hydrographs.

Monitoring data is being collected to fill in gaps in existing knowledge on how NFM features function. Using flumes to measure discharge downstream of interventions and water level loggers within storage areas (or leaky dams) it is possible to calculate storage functioning relative to streamflow. A flourometer will be used to show effective storage for interventions in larger channels. Plot comparisons across a boundary and paired catchment comparisons are being used to compare soil moisture and hydraulic conductivity in different land use types and areas that have and have not had soil aeration/sward lifting.

The team has combined existing hydrological models to create a model that can cope with hillslope, channel and overbank flows. Models are being tested on catchments of < 1 km^2 using flumes that provide accurate discharge measurements with public facing outputs. Several students are currently working on developing flood forecasts from the flume data for communities at risk of flooding.

Infrastructure removal for Ennerdale compensatory measures – Alice Senior – United Utilities

See attached slides.

When the West Coast supplies project pipeline is complete, United Utilities will surrender their abstraction licenses for Overwater and Chapelhouse reservoir, Ennerdale water and Crummock water. Infrastructure removal and re-naturalisation is planned for all sites as compensatory measures, with work at Crummock water likely to proceed first.

Feasibility studies are underway for all sites to assess different options for renaturalising these reservoirs. The feasibility studies are looking at the impacts on ecology and geomorphology and downstream flood risk. There is a very slight increase in flood risk to Cockermouth from stopping abstraction from Crummock water and this is used as the baseline for any suggested interventions. All potential high level options were assessed against the baseline and full removal had most benefits. Removing all the infrastructure would reduce downstream flood risk as it would allow water to spread out onto the surrounding floodplain, but just removing the wave wall would increase flood risk and so has been ruled out as an option.

The feasibility study needs to be finalised with stakeholder input and a stakeholder workshop is planned for September. The feasibility study documents are not yet public but will be made public for the stakeholder events. Alice was reminded to invite Keswick and Cockermouth flood action groups, downstream land owners, riparian owners, anglers and Derwent river management group. Doug Coyle (Cumbria County Council) would like to be part of the project steering group as lead local flood authority.

Nick Chappell highlighted that the NFM modelling by Lancaster University and JBA for the Cocker catchment identified that Crummock water had a huge impact on flood risk to Cockermouth which massively outweighs any contribution that could be made by NFM interventions. The question was raised as to whether infrastructure could be added to Crummock water to further reduce flood risk but the legislative driver of the United Utilities project is ecological so needs to focus on re-naturalisation.

Action: Alice and Nick to catch up about available modelling

Paul Barnes stated that the Derwent communities had looked into taking over Crummock weir as a community asset and have had modelling done showing how much extra storage capacity the

reservoir would have if the weir and sluice gates were managed as flood risk management assets. However, there are complications with the reservoirs act and the remit for United Utilities project is renaturalisation.

Discussions

Barriers to delivery of Natural Flood Management features

There is uncertainty about the consents and permissions required for NFM features and concern that lengthy consenting processes could affect what can be delivered in the timescale of the DEFRA funded NFM projects. The Minister has threatened to take money away from projects that aren't delivering so there is a need for delivery to progress at pace.

At the last partnership meeting (May 2019) there was a discussion about the barriers to NFM delivery. Several conversations have been progressed since this meeting.

a) Agri-environment schemes

There are difficulties in adding works into existing agri-environment agreements and lack of resource for Natural England advisors. This has previously been raised with CSFP but we need to keep raising the issues to ensure NFM is a key part of future Environmental Land Management schemes. NFM is specifically mentioned in the 25-year environment plan and needs to be delivered through ELMs if it is to be done at an appropriate scale.

The ultimate aim of the Q-NFM project is to present the evidence to convince DEFRA to make NFM deliverable and to fund NFM through agri-environment schemes.

Action: Dave Kennedy to feed into DEFRA integrated team.

Countryside Stewardship priority maps don't reflect communities at risk of flooding, including Flimby and Bootle. The group was unsure how these maps are created and how they could be changed. For the Forestry Commission priority maps for woodland creation, local officers felt they would be able to update the maps if sufficient evidence were presented (e.g. demonstrating a community was at risk of flooding).

b) World Heritage Site (WHS) requirements

Heritage impact assessments are required for all features created within the WHS. Within the WHS an EIA is required for any tree planting (0 Ha+). A meeting with the World Heritage site technical advisory group and partner organisations is planned for 9th September to clarify current uncertainties.

c) Planning permission

Currently all water storage areas, bunds etc. that are not part of a field boundary require planning permission because they are classified as engineering works. This is very resource intensive and could affect what can be delivered in the timescale of the NFM projects.

There is a meeting of the Development Management Officer Group on 20th September. Doug Coyle sits on the group and will add NFM to the agenda so that different types of interventions can be

discussed across all planning bodies in the county and a consensus reached about when planning permission is required. This could also be raised with the RFCC.
Action: Doug Coyle to add NFM planning permission to agenda for DMOG meeting. Caitlin to send examples of projects.

Neville Elstone noted that there is a lot of work required to streamline the consenting process for NFM installation which is beyond the capacity of the catchment hosts. There is a package of work needed to collate all the evidence and demonstrate the issues. Could the staff time for an EA employee to do this be funded through the 'slow the flow' local levy funding?
Action: Vikki Salas, Neville Elstone and Dave Kennedy to progress this conversation.

Catchment Action Plans

Creating catchment action plans is a requirement of the CaBA partnership hosting. The aim of the plans is to identify all on-going work and where there are gaps in delivery. All partners agreed that the format of the action plans was easy to digest and were reminded that keeping the action plans up-to-date depends on the project pipeline Google spreadsheet being updated.

Four action plans were reviewed; Upper Derwent, Lower Derwent, Cocker and Ehen & Calder. There were lots of discussions and feedback about specific projects, which were noted and will be used to update the action plans. It was highlighted that it needs to be made clear what the action plan is for; does it focus on flooding, ecology or people and which is prioritised? The suggestion was made that the project statuses could be colour coded so it is clear what we are doing, what we are going to do and what we would like to do but do not have resource for. This would make it easier to identify and focus on the projects that could be progressed by the partnership.

Several new projects were identified and added to the actions plans and project pipeline where appropriate. These included:

- Ongoing work on Newlands mine spoil to monitor diffuse pollution. The Environment Agency have completed hotspot mapping and Durham University and the British Geological Society are working on a DEFRA funded project to look at potential methods of stabilisation.
- Several potential projects are being developed through the National Trust's Riverlands programme including unconstraining Watendlath beck and restoration of Sail beck (Newlands).
- Borrowdale fisheries plan, with gravel introduction into Derwentwater feeder streams.
- The need to look at Crummock water as a flood storage asset was identified by multiple partners. The current project by United Utilities is looking to re-naturalise the reservoir and is considering downstream flood risk but there may be potential to look at flood management in Crummock more widely.