

iCASP Natural Flood Management Meet-up Group (MUG)

Meeting 1, Hardcastle Crags, 8th November 2018

Agenda

10:00-12:00	Site visit: Tour of interventions installed by Slow the Flow Calderdale
12:00-12:45	Lunch and networking: Weaving Shed Café, Gibson Mill
12:45-14:45	Forum: Gibson Mill Meeting Room Introduction to CoP and purpose Lightning talks from iCASP team covering modelling, monitoring and ecosystem services/natural capital Discussion Groups: 1. Monitoring & Modelling 2. Wider Benefits/Ecosystem Services 3. Delivery & Engagement
14:45-15:00	Wrap Up

Purpose of the Meeting

The day was designed to introduce the idea of the Community of Practice through a site visit to an already established NFM project. A morning walk over allowed all to see the NFM features currently in place at Hardcastle Crags and to understand how the programme of works has developed over time and most importantly ask questions. The afternoon was used to discuss three key themes that had been identified during earlier interviews with those involved in the Defra funded pilots, the Leeds City Region Growth Deal funded Growing Resilience NFM programme and Leeds FASII scheme. These three themes were monitoring and modelling, wider benefits/ecosystem services and delivery and engagement.

Top-level actions

1. Format of meeting agreed to include a combination of field visits and discussion groups to share progress and experiences between NFM practitioners. It was agreed that quarterly meetings was appropriate interval.
2. Understood why a restricted group of partners had been invited to this first meeting, but suggested that group be extended out for subsequent meetings (**action: iCASP project management to work with partners to develop invitation list**).
3. Group has a key role in influencing policymakers and the national NFM agenda
4. Agreed to prepare a press release on the NFM work/projects across Yorkshire (**action: iCASP publicity officer to work in combination with Dan Turner**).

5. Two workshops agreed from discussion groups 1 and 2.
6. Next meeting will be a monitoring workshop scheduled around Feb 2019 (**action: iCASP project manager**).
7. Following meeting will be a field visit/discussion group, likely Bishopdale, after Easter 2019 (**action: iCASP project management/Dan Turner**).
8. Workshop on wider benefits/ecosystem services also to be arranged (**action: Guy Ziv/iCASP**).

Notes from discussion group 1 – Monitoring & Modelling

Comments on current monitoring at Hardcastle Craggs:

- Monitoring at Hardcastle has used a combination of cameras and ultrasonic level.
- There have been issues with maintenance as the requirement is constant which is difficult for a voluntary group. Currently several stage recorders not working correctly. Also suffered issues with getting data – steep sided cloughs make data transfer difficult.
- Are attempting to measure inflows through a combination of pipe flow and v notch weirs – need to understand how best to measure flow through these. They don't have the equipment to do this.
- Simple time-lapse cameras came as an afterthought. The cameras provide some evidence to show the features are working. Have captured a lot of footage.
- Future requirements might be:
A protocol is missing to make judgements on cameras:
 - What to do with footage?
 - What can it show?
 - How to analyse?
- Could a trigger be used to operate the camera to reduce wasted imagery/battery and save time in the analysis phase (i.e. sensor to turn on cameras when rain falls)? Limitations due to lack of network signal in remote areas.
- Kick sampling for aquatic invertebrates is being carried out twice a year but there is high variability so how to distinguish between variability and effect

Individual or collective evidence

- Do we go about proving the case for 1 measure or as all combined together? If latter then then this might help reduce start-up costs
- Rough guide used has been to allocate 10% of funding to monitoring
- Based on this which bits are practically possible
- Maybe should shift focus to Yorkshire as a whole – what can/will each project achieve
(**Action: Richard Grayson and Wendy Quarrie to discuss this in more detail**)

Funding and baseline monitoring:

- Concerns that funding doesn't support collection of baseline data. Options to get around this might be to steer the strategic monitoring review to collect some of this baseline data.
- Could Defra potentially fund someone to carry out some of the monitoring, with funding across the projects? This would be more objective as they would not be directly involved with the projects.
- Value is placed on modelling – can it be used as justification

General monitoring questions/comments:

- For the smaller projects monitoring is typically opportunistic
- Concerns over longevity of monitoring
- Issues with calculating stage-discharge curve – not practical for community projects due to access to equipment and time
- Habitat change is a long-term response so how do you go about quantifying change in response to works if they take place in the last year of a three-year project?
- Soil measurements – how many and where? Use the VESS approach for consistency
- Runoff studies – how transferable are these? Can they be applied locally?
- Wider benefits – focussing evidence – taken from elsewhere
- Cost benefit – is it possible to do all? Consistency of appraisal
- In terms of monitoring what is the minimum that will allow enough data to be collected? e.g photographic evidence of effectiveness of NFM (including spatial coordinates, date and time taken and any other relevant information that could enable us to relate it to the corresponding rainfall event and facilitate modelling); calculation of storage behind leaky dams...
- Variability between monitoring and modelling approaches among different projects would make it difficult to compare results.

Engagement

- Need to pass the message on that not tidying up and leaving messy is a good thing. Also how do you quantify this impact?
- Maybe need to consider being less precise about all things
- Advice on maintaining engagement for citizen science, including practical days / workshops

Project specific comments/questions

- **FAS** – how to go about prioritising what to monitor?
- **Backstone** – requires a defined channel and so what is the best system to use
- **Midgelden** – Is it possible to use data from outside to demonstrate effectiveness of some measures – how would you go about incorporating data from more advanced sites?
- Probably need to focus on existing (Wendy Q)

Potential Opportunities going forward

- Set up a photo gallery – beyond the limited number of images allowed in the CaBA tool

- Using MSc student to undertake NFM related dissertations that focus on specific parts of the monitoring objectives?
- **Action: go through list of objectives and highlight those that might work well in terms of a dissertation topic**
- **Action: – pass a list of skills that our masters students could help with**

Outputs:

- Demonstrate effectiveness
- Value for money
- Assessment of different interventions
- Impacts on peak flows

Notes from discussion group 2 – Wider Benefits / Ecosystem Services

Minutes from wider benefits/ecosystem services discussion table

1. The length of the monitoring guidance document produced by CaBA is a barrier. Having a table as Richard is doing would be helpful (should give page numbers to refer to full document if someone needs it). Someone suggested to make a podcast from the guidance.
2. There was an agreement that some protocols / template surveys developed by academics on e.g. cultural activities or other ESS would be helpful.
3. Otherwise, projects reinvent the wheel if they aim to quantify any dimension of the benefits wheel. Projects may not be compared to each other having very different approach to estimate ESS.
4. The lack of time and funding for baseline was highlighted also in regards to wider benefits
5. Many projects work with volunteers, and perceive that engagement as a key success. Having a common metric to evaluate the engagement on one hand, and perhaps questionnaire to ask those volunteers how setting up NFM changed their perception would be valuable.
6. Dan pointed to the tool developed by West Country Rivers Trust for ESS visualization <http://wrt.org.uk/project/ecosystem-services-visualisation/>
7. Participants agree in principle to benefit wheel approach (but see below). Some pointed out this is a way to demonstrate and secure additional funding not from the FCRM pot.
8. Several shortcomings of the proposed CaBA methodology were highlighted
 - a. Current tables suggest 5 = best level of improvement. It can be that 5 = best level of service flow. The two are not the same. The guidelines are not clear enough on the definition of the scale 0-5. There are also some numerical mistakes in the formula proposed in version 18.
Suggestion: clarify the scale and calculation method
 - b. Projects have different objectives, so expecting all of them to improve all dimensions is unrealistic. Participants realized future funding is likely to require multiple benefits.
Suggestion: add a step to identify 'materiality' dimensions and report only those

- c. Methodology currently proposed does not consider 'environmental cost' of interventions, only the benefit of it. There may be issues of displacement of impact elsewhere
Suggestion: to explain those issues in the guidelines, and include in reporting template a declaration about displaced impacts
 - d. Current thresholds in tables do not consider project size
Suggestion: to change thresholds so that 0 to 5 scale with the potential of the project either based on the type of project (catchment vs community) or the geographic extent of the project
 - e. Soil health is missing from benefit wheel
Suggestion: to add that dimension to benefit wheel
 - f. Community engagement and impact on volunteers fall within a broad category of cultural activity together with impact on recreation etc. This may not work in projects where interventions are mainly on private land or places not open to public anyhow – no change in recreation but can have engagement/community significance
Suggestion: to consider separating out in benefit wheel impact on engaged community and volunteers from long-term impact on recreation. For example a metric of 'social integration' in relevant stakeholders.
 - g. Several dimensions are impossible to assess without data, which is only available in an 'intermediate' complexity monitoring – for example dissolved oxygen
Suggestion: in each table keep some columns sufficiently / more basic so expert opinion is sufficient to justify choice of level. Have say 2-3 columns that require data gathering (see above for providing protocols) that are only needed for 'intermediate' complexity reporting
 - h. In some areas there is no opportunity for improvement on a particular axis, say air quality. The project may rank 0 on that axis but in another location the same work would score high
Suggestion: either allow 'materiality' assessment (see above) or have the thresholds set as percent of reaching from baseline to a reference / goal level
 - i. The timescale in which ecosystems react to management may be too slow to quantify some topics in the tables. Also in some areas lack of expertise how/when/how much to monitor/measure can hinder accurate assessment of impact
Suggestion: to screen the tables for issues with long response time. Having protocols would help avoid errors in others
 - j. Projects' report on benefit wheel will not be comparable as they had different approach and protocols to quantify them. Guidelines suggest too many options and sometimes complex models and individual researchers body of literature.
Suggestion: unify protocols and simplify to make a level comparison even if not perfect.
9. There is interest in holding a workshop dedicated to fleshing out the details of benefit wheel tables. A suggestion was raised to have projects attempt to score themselves with current draft tables before the workshop.

Notes from discussion group 3 – Delivery & Engagement

Delivery

- Noted that big flood events were the catalyst for much of the current NFM activity on the ground. It was felt that momentum was being maintained at community level. Always a risk that the political agenda may change.
- Planning and permitting was seen as a limitation to engagement, particularly in Calderdale where smaller landowners were put off by the bureaucracy (larger landowners may be more familiar with the red tape).
- There are large differences in approach across different Planning Authorities. North Yorks CC had been involved in the Ryevitalise project from its initiation and have indicated that they would be willing to sign off interventions at a number of sites under a single planning approval.
- Drainage consent has been a hold-up in some projects.

Suggestion: It was considered important to get planners and engineers out to the NFM projects to increase awareness. This was proving difficult and it was felt that action from MPs or Council Leaders would be needed to instruct the engagement.

Suggestion: It was felt that providing guidance to Planning Authorities would be helpful in setting out levels of risk and helping to differentiate those cases where planning consent would be needed.

Suggestion: Timing of release of funding can be problematic because installation of NFM interventions is seasonal so need to align funding availability with times when work can be undertaken.

There were some conflicts between objectives for biodiversity versus those for NFM and the need to avoid double funding down a single hillslope. Rural payments are not structured to support NFM and in some cases projects are having to wait for opportunities to implement NFM plans until land comes out of HLS. NFM is generally disadvantaged in this conflict because schemes are often unable to give compensation.

Engagement

- In Calderdale, there have been successes in engaging with smaller landowners, but larger farms are proving more challenging. The differentiator was largely around large commercial enterprises vs. smaller, part-time landowners.
- There was discussion of the dangers of a two-tier landowner community. There are a group of farmers who engage and are regularly involved in projects and other initiatives. This group can be seen as “milking the system” by the remainder.

Suggestion: Cluster groups with ca. 16 landowners have been successful in Bishopdale. They own the process and create a collective vision. The South Pennines facilitation group was also seen as an example of good practice in influencing landowners.

Suggestion: The importance of demonstrator areas was a common feature across projects. This allowed the spread of NFM awareness from one landowner to the next in an organic way. Council owned land was being used for the demonstrator in the Upper Aire. Demonstration areas were also seen as helping to overcome risk aversion, noting that NFM was often seen as a risky intervention.

It is important to establish a no-blame culture in implementing NFM. Landowners have been enacting government policy. Also need to work around organisational preconceptions – e.g. the EA and Councils can be viewed with suspicion by some landowners.

Continuity of engagement with the landowner community was felt to be an impediment to progress in some projects. There can be a lack of local knowledge of the community, so progress in engaging with that community is sub-optimal. Government procurement rules prevents the EA from contracting existing people working in catchments because they are required to go out to tender. Set against that view, the catchment partnerships were felt to be effective and were providing continuity of engagement in some locations.

Engagement with schools was seen as a success for some projects (e.g. Midgelden, NT focus) and it was noted that the EA had previously struggled to make headway on this.

Suggestion: The engagement of highways authorities in the same location as NFM projects was felt to be an area that was not working well at present but where there were opportunities for co-delivery.

Some projects have an important role in communicating with flood affected communities.

Action: There was a discussion around whether projects should be recording solely the engagement activities that are occurring, or the outcomes from those engagements. Some guidance on this would be useful.

General

Suggestion: It was felt that there was a role for the Yorkshire projects/iCASP in identifying and communicating common issues so that they could be actioned and resolved (e.g. raising the profile of issues that need political solution or development of further guidance).

The JBA online tool will continue to provide mapping of projects and there is now a utility for users to enter a vector area for a new project.

Action: Dan Turner is involved in an Interreg project looking at top-down vs. bottom-up environmental governance and the space between. There are parallels with NFM intervention and Dan is happy to make the link to that project.

Action: Agreed that a joint press release would be useful to raise awareness of the scale and coherence of activity underway across Yorkshire.

List of Attendees

First Name	Surname	Company
Jo	Arnold	Environment Agency
Craig	Best	National Trust
Stuart	Bradshaw	Slow the Flow Calderdale
Colin	Brown	University of York
Matthew	Cross	Derwent Catchment Partnership
Chris	Fry	Moors for the Future Partnership
Richard	Grayson	University of Leeds
Jack	Hirst	Yorkshire Dales Rivers Trust
Rosie	Holdsworth	Calderdale Council
Georgina	Kerr	Derwent Catchment Partnership
Mike	Kirkby	University of Leeds
Dongria	Kondh	Treesponsibility
Chloe	Lumsdon	National Trust
John	Malley	National Trust
Andrew	Mindham	Bradford Metropolitan District Council
Wendy	Quarrie	Environment Agency
Holly	Radcliffe	Environment Agency
Teresa	Raimondo	Bradford Metropolitan District Council
Steve	Rose	JBA Consulting
Syd	Simpson	Bradford Metropolitan District Council
Julia	Somers	Environment Agency
Geoff	Sweaney	Slow the Flow Calderdale
Marie	Taylor	Yorkshire Dales Rivers Trust
Mark	Trigg	University of Leeds
Daniel	Turner	Yorkshire Dales Rivers Trust
Zora	van Leeuwen	University of Leeds
Joost	van Schijndel	Forestry Commission
Martha	Villamizar Velez	University of York
Richard	Vink	National Trust
Andrew	Walker	Yorkshire Water
Guy	Ziv	University of Leeds