



Catchment Based Approach

CATCHMENT DATA & EVIDENCE FORUM 2020

Online Event: 18th August 2020 10:00 – 16:30

Q&A SUMMARY

MORNING SESSION

Q: By breaking up big tasks do you make agency of participants easier?

A: Alex Inman - Yes definitely. Overwhelming folks with too much in one go is not ideal.

Q: The recent A level results fiasco is the antithesis of the lessons you shared - do you have comments on how this process could have built trust by being more explicit about assumption?

A: Alex Inman – Answered live

Q: Do you feel the process would have worked using only virtual/zoom links etc, as per current situation?

A: Alex Inman – Answered live

Q: How do you deal with a situation where the stakeholders who are willing and requesting to get involved in collecting/analysing data are not the ones whose behaviour change will make a difference? i.e. where the agency to affect change doesn't match the stakeholders willing to engage?

A: Alex Inman - Great question. There is a need in these situations to build social connections with difficult to reach/unengaged stakeholders to enable an atmosphere to whereby they are prepared to engage with the process. I would argue this process of building connections is the starting point for any catchment planning exercise. It is difficult, takes time and requires very skilled facilitators.

Q: Can you reuse the models you developed in collaboration?

A: Great question. Transferability of models is obviously important because of cost and resource limitations. To answer your question, reuse depends on the nature, scale and complexity of the issue the model is trying to address. The model we developed was transferable because we used data which is reasonably easy to access in addition to data generated by stakeholders through a workshop methodology is reasonably easy and quick to organise in different catchments.

Q: Re Modular river survey: Is there any technical support I can call on, as we need to increase our GIS capability and need to think through how we can take this forward to enable us to be using these various tools and increasing mapping requirements for each project. Can you send your email address?

A: Dave Gurnell - Absolutely! please contact us at hello@cartographer.io. Thanks for your question, we'll look forward to hearing from you - we're always interested in refining our services to meet user needs.

Q: Re SCIMAP. This must depend on there being existing data for catchments and rivers. We are working in an area with numerous small brooks which are ordinary water courses, not main river and the main river has no flow data. Will this work for this catchment?

A: Sim Reaney - On the web app, there is national (GB) data at 10m resolution. If this is not sufficient, then you can use the desktop version with the EA LiDAR data set. Most of England is now covered and the remaining part will be available soon. The other option is the Drone methods that Catherine is talking about now.

Link: Catherine McIlwraith - Links to video tutorials for estimating pond storage.

Part 1: <https://www.youtube.com/watch?v=PYb7nUapXbM>

Part 2: <https://www.youtube.com/watch?v=ceGi360jzI0>

Q: Adrian - What program do you use to create DSM models are there any affordable platforms for this as photogrammetry programs usually come with heavy costs and annual licensing?

A: Adrian Hughes - we use ESRI's drone2map application, but you can use the orthomapping module in ArcGIS Pro if you have a licence for that. There is also opendronemap which is free. Someone in my team tried it out for orthomosaics and it worked well. Not sure about DSMs but worth checking out.

A: Sim Reaney - If you want free, an option is WebODM <https://www.opendronemap.org/webodm/>

Link: Adrian Hughes - RSPB Drones for GIS Best Practice

https://www.wildlabs.net/sites/default/files/community/files/drones_for_gis_-_best_practice_v2.0.pdf

Link: Jayne Mann - Canva <https://www.canva.com/>

Q – Re Farm water quality testing. What is the spatial distribution of the sampling tests? Is it just only near farms or does it extend out of farms boundaries?

A: Holly Pearson - we have used these kits to investigate water quality on a catchment scale, as well as on-site at farms to show them what is happening on their land. They are great because we can use them very flexibly to assess water quality.

Q – Ashraf Afana - we at National Trust and our partner river trust use simple sample kit (Kyoritsu and La Motte) for Citizen Science and these are not as reliable as the one you are using, but for Citizen Science and Public engagement they deliver for the objective. Did you try to establish a sort of control and connection with these sample kits? The idea is to use and merge the data collected by other organisations that work in the same area.

A: Holly Pearson - We use our CSI data (like you, with what would be considered less accurate kit) as a sort of collection of reconnaissance surveys to give us a baseline for water quality for various catchments throughout the Westcountry. By gathering this lower accuracy but higher frequency baseline we can get an idea for what is "normal" for each river. When we spot something that is out of the ordinary, we can use these more accurate kits to investigate further and provide a more quantified water quality assessment.

A: Ashraf Afana - many thanks, I think we use similar approach. The simple sample kits are to give baselining and where frequent high NH3 and PH4 are found we use precise kits.

Q: Can you give me a budget price for a Farm Advisor Kit where can I buy these?

A: Holly Pearson - our kits including colourimeter, TDS/temp meter and phosphate reagent sachets are around £2500 per kit including the handy case. We got the instruments online from HACH.

Q: Re Natural capital pilots - how will you do these engagement sessions in current conditions - will you still try face to face in small groups? What other mechanisms are you trying? Zoom plus small group virtual work?

A: Dan Geerah - We are following a mixture of approaches. We are still doing face to face (outside) with farmers and land managers. Engagement with the organisations has been done via online meetings.

Comments during morning discussion

In relation to the question where are the greatest opportunities for the data and evidence community to support CaBA in engaging with communities.

Mark Summers: Mapping existing groups and communities who would be good targets for citizen science.

Andrew Ross: Why is there no reference by anyone to Green Finance?

Arron Watson: Would Alex's point in relation to understanding people come under the social sciences aspect of the poll, this sort of training would be fantastic towards how to engage a wider audience.

Jenny Parsons: Alex - I fully agree that social science and behaviour change is crucial to ensure we achieve long term conservation outcomes. Personally I didn't rate it highly in that pop up question because I'm not sure yet if it is the role of the data and evidence team to provide training on this or if it sits better in another forum/ group.

Ellie Brown: Completely agree with Alex that understanding your target audience and inciting behavioural change in them is absolutely critical. Not sure how a project can be hugely successful without understanding how your target audience thinks/behaves first.

Mark Summers: Care raising expectation in areas where resolution may be problematicmaybe focus on EA priority areas where resources are more accessible. Can you link training/participation to the health and wellbeing agenda?

In relation to the question should we broaden the focus of CDUG and the Forum

Gina Rowe: Local Nature Partnerships are working on mapping NRN and also Local Nature Recovery strategies so should be involved.

AFTERNOON SESSION

Q: Question for Rich: How do you ensure that the GRTS doesn't, like the A level problem, by looking at the big picture and spatial distribution fail to pick up on importance of local factors in network design e.g. whether each geology is adequately represented, whether rare types of river are included, and small catchments where assessment methods don't currently exist are very much needed.

A: Rich Walmsley - The network is designed to look at the bigger picture and covers far more of our small rivers and headwaters than our current network. We recognise that there will be local impacts and our targeted programmes should cover these. We are also aware that very small rivers might not be covered by WFD compliant methods. Again this is something we are looking at to extend the network further.

Q: When will River Surveillance Network and Sentinel have Fish population data?

A: Rich Walmsley - Essentially the sites we are using will be capable of being monitored for fish but at the moment we are constrained by funding as fish monitoring is very resource intensive, so I cannot answer your question as it will depend on when funding will become available.

Q: Thanks Rich. Disappointing to hear that there isn't sufficient funding to monitor this important part of our ecosystems.

A: Rich Walmsley - It is but we are putting in bids to the next Gov't spending review for monitoring and hopefully we will be successful.

Q: Comment to Jayne Wilkinson from Craig Hastie - we used very similar spectrophotometer kit back in 2010 when I worked in monitoring and data developments, they are absolutely fantastic.

A common feature is also the ability to do blanks for each sample, as well as positive spikes so there can be even higher confidence in data. I think we used the hach dr 5000 spectrophotometer when trailing it about 10 years ago, cost around £7-8K, basically a lab in the back of a van.

Q: Question for Cath: have you compared the results of your "temporary" stream monitoring to the results from groundwater models, and, if so, how did the models measure up? And did the new data provide any conceptual insights not included in the models that could lead to their improvement?

A: Cath Sefton - There's great scope for citizen science to be useful in helping to validate groundwater models - and to provide additional information such as ponding, and at greater temporal resolution than the standard 10 days. We are keen to work with modellers on this, whilst acknowledging there are lots of other drivers of intermittence besides groundwater level.

Q: Re the Bioblitz Was any clinical evaluation done on the Health & Wellbeing aspect, could this be used to lever in financial support?

I think it is really difficult to evidence any health and wellbeing benefits from an event like a bioblitz, due to the limited time. We have seen better results where the bioblitz is delivered alongside more in-depth workshops; the whole process allows more time with the public to build a support network and encourage further involvement in wildlife recording.

Very interested in the Health and Wellbeing Aspect, the impact on mental health of covid, flooding etc is creeping up the agenda. The challenge I think is how to bring this kind of activity alongside that challenge in a way that contributes to its sustainability (i.e. a financial contribution from health).

Q: Anything that gets people out socialising and away from sedentary behaviours may have potential to contribute. I noted a stethoscope in the last presentation, were doctors present?

A: Tom isn't able to join us today, but yes, I believe they did have some local GP practises at the BioBlitz giving people advice, answering queries, encouraging people to spend more time outdoors and offering check-ups. You can get in touch with Tom via tom@wyriverstrust.org if you want to ask him more.

Links from Liz Chudoba – Alliance for the Bay

<https://www.volunteeralive.org/docs/Strategic%20Volunteer%20Engagement.pdf>

<https://positiveforce.com/12-reasons-people-volunteer/>

<https://www.birds.cornell.edu/citizenscience/resources-for-practitioners>

https://www.dickinson.edu/download/downloads/id/10604/stream_team_volunteer_policy.pdf

<http://www.humanecologyreview.org/pastissues/her112/overdevestorstepenuck.pdf>

Link: Michelle Walker - Here is the monitoring cooperative hub site where you can find the videos, proposal and consultation survey: <https://monitoring.catchmentbasedapproach.org/>

Q: Michelle, when is the deadline for the consultation please - sorry if I missed it!

A: 31st August

Comments during the afternoon discussion

In relation to why people have not responded to the catchment monitoring cooperative consultation:

Ashraf Afana: Furlough is a problem to do any sort of work. We have been instructed not to carry out any sort of work.

Cath Sefton: Consulting with colleagues

In relation to discussion on data hackathons:

Craig Hastie: the EA has been involved in various hackathons and would be happy to connect up anyone interested with experienced practitioners. The key we have found for hackathons is having experts in the datasets available for the developers to be able to talk to as they will have little to no understanding of the environmental data

Liz Chudoba: Hack the Bay: <https://hack-the-bay.devpost.com/>

Izzy Bishop: My predecessor at Earthwatch (Ian Thornhill) has run hackathons with citizen science data. Happy to put you in touch if it would be helpful. I'm afraid I don't know many of the details.

Anneka France: <https://www.datakind.org/>

In relation to other wider benefits the catchment monitoring cooperative could help deliver:

Simon Browning: An 'Other' from me - increase awareness of how river systems work. Rivers/catchments are complicated - but fascinating. Add in drinking water and sewage discharge and it is something that more people should know more about.

Mark Summers: We should not underestimate engagement to change mindsets i.e. farmer empowerment.

Craig Hastie: other would be who are the users of the catchment? building a picture of all users is key to me

Andrew Ross: Connect with MHCLG (Ministry of Housing Communities and Local Government) Planning for the Future

In relation to the scope of the Catchment Monitoring Cooperative:

Izzy Bishop: On the issue of gaps in regulatory monitoring: For me, it is not about doing the job of the regulator. It is about making sure that citizen science data is used and responded to. One impact could be improved public trust in the regulator if managed correctly! Can only be achieved by openness of how data is used.

David Bunt: For me, other would be fish populations and migration barriers.

Arron Watson: To Simons point: There is a similar relationship that's been built with the Riverfly Partnership and through building a structure of expectations and how those reports are checked has been a successful model with EA ecology contacts in relation to responding to potential incidents

