

#CleanUp2019



The unsession

Your conversation driver is...

Paul Nathanail
@LQMTweets

11 September 2019

#CleanUp2017 Topics



- Bioavailability of residual contamination
- Outreach – STEMM vs celebrity & wealth 4
- Public awareness, real vs perceived risk, 10
- Audit system VFM? How do I prove I'm competent? Certified practitioner scheme? 2
- Manufacturer pays
- Minimising sampling waste and other practices 1
- Failures I have learnt from 2
- VFM CPD 2
- Big data and remediation 7
- Stewardship of natural capital – who are the stewards 3
- Asbestos 1
- PFAS
- Can we have a national EPA? 1
- Define maximum extent possible 1
- Orphan sites – long term liability 6

Rules



- Chatham house rule
- Rule of feet
- Outcomes reported in Remediation magazine?

The unsession

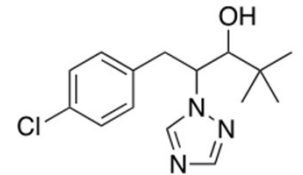
- An unsession has no structure - yet.
- Nobody is giving a presentation – unsessions are all about conversations.
- So, YOU suggested the topics and unsession attendees vote on which ones they want to talk about.
- The most popular topics will be taken forward and the Conversation Driver (a.k.a. Paul) will ensure the right amount is spent on each one.

#Cleanup 2019 Topics – TOPFive!



Sound science:
Defensible decisions

- Implications of climate change on remediation >30
- **When** should we engage with communities, keeping in mind the desire to avoid outrage? 29
- **Should** cost benefit analysis be a formal part of the policy related to remediation? 29
- Putting bioavailability into practice in RBLM 25
- Role of Screening bioassays of contaminants 20



Climate change

- Add extreme weather conditions to PM plans, risk registers
- Design remediation for extreme weather
- Planning policy and regulation to ensure design is done properly and consistently
- Climate change as a remediation technique: inc T&P reduced VI; bugs on speed
- Inc T>> inc bioavailability
- Consider CC at options appraisal stage
- Change in water table >>> CSM
- Who cares? Don't sweat the small stuff! Chill out!
- More energy >>> flooding, thawing, fires and changes to chemistry and biology
- Use brownfield to accommodate climate refugees
- Stressing microbes affecting potential for bioremediation

When?

- Early and often
- Communities are part of the problem
- Engage with workforce to become advocates of change
- When you have something to say! Avoid meetingitis
- Deliver on your commitments, on time!
- Define clear expectations early
- Bring them on the whole journey >>> transient community [& regulators] causes problems

CBA

- As part of SR appraisal, triple bottom line
- Cost as dollars or broader? Non monetary costs
- No - interplay with polluter pays principle...
- CBA is subjective, hard to formalise in a structured way
- Interface with ALARP and Reasonably Practicable, inc Cost vs risk reduction
- Risking away HH risks is NOT ok, could be ok in other cases
- NRF... would deal with this if adopted nationally as it embeds CBA

Bioavailability in RBLM practice



- Laboratory capacity? Yes
- Relevant to everything! But not considered in the risk analysis
- Cost limitations may deter uptake
- Lots of communication with academics; need to be broadened to regulators and practitioners and end users
- For less accessible substances, ways of enhancing bioaccessibility to enhance degradation
- Need to be validated for more than just Pb and As, PAH... eg PFAS!
- Testing every time may not be necessary... but it is easy! Use the literature
- Good validated procedures for metals; not so for organics (in vivo validation) – also need to consider metabolites... much work still to be done!

Thank you!



#CleanUp2019 #Unsession @CRCCare @LQMTweets
#tldr: Thanks for your ideas, enthusiasm and participation

paul@lqm.co.uk