

SOBRA SUBGROUP – CONTROLLED WATERS¹ AND CLIMATE CHANGE

TERMS OF REFERENCE (MARCH 2024²)

Membership

Melanie Lyons (SoBRA Committee Sponsor)	(Shell)
Simon Cole	(Hydrock)
Helen McMillan (Lead)	(RSK Geosciences)
Emma Khadun (Secretary)	(LK Group)
Katie Gamlin	(WSP)
Roisin Lindsay	(WSP)
David Drury	(Golder/WSP)
Emma Evans	(Arcadis)
Emma Hipkins	(Golder/WSP)
Jesse Davies	(Ramboll)
Leon Warrington	(Hydrock)
Suzanne Blackman	(Mott MacDonald)
James Wilson	(Atkins)
Isla Smail	(SEPA)
Sarah Poulton	(NRW)
Jonathan Atkinson	(CL:AIRE)
Heidi Bignell	(Environment Agency)

Note: Membership of the subgroup will be under regular review, with places allocated to those who actively contribute, i.e. fulfil their work remit in the timescales agreed with the subgroup Lead, in liaison with SoBRA's Executive Committee.

The SoBRA Executive Committee, in liaison with the subgroup Lead, reserve the right to remove Members of the subgroup.

Only members of the subgroup who have actively contributed will be credited within any publications.

Privacy Statement

At SoBRA, we are committed to protecting and respecting privacy. SoBRA retains a Privacy policy that can be found at <https://sobra.org.uk/about-us/>. As members of this subgroup you are agreeing to the terms of this Privacy policy in full. Throughout this project subgroup members are also agreeing to share their email and contact details with the other members of this group. Personal data should not however be disclosed to unauthorised people, either within SoBRA or externally without approval

¹ Controlled Waters is a term used in legislation in England and Wales. Its equivalent in Scotland and Northern Ireland is the Water Environment. Throughout this document this term is used to refer to regulated groundwater and surface water throughout the UK.

² v1 June 2021, v2 March 2022, v3 March 2024

Purpose and Objectives

The purpose of the Controlled Waters and Climate Change Subgroup is to develop robust and practical guidance to ensure Controlled Waters risk assessment of land contamination takes into account future climate change. The objectives of the Subgroup are:

- To promote technical excellence in the consideration of future climate change, including short term extreme weather events that could be attributed to rapid climatic change, when assessing, estimating and evaluating risks to controlled waters from land contamination;
- To update the existing guidance with relevant developments in the field of land contamination controlled waters and climate change;
- To encourage best practice by delivering clear, practical advice to support decisions about the potential effects of climate change through all stages of controlled waters risk assessment;
- To develop guidance in a timely manner;
- To periodically represent SoBRA at conferences to share learning outcomes and to raise awareness of the guidance;
- To mentor and support one another.

The above are considered to align with the SoBRA core objectives:

- To encourage “good practice” in the practical applications of risk assessment to support decisions regarding the appropriate management of land contamination.
- To facilitate the dissemination of, and widen access to, knowledge regarding land contamination controlled waters risk assessment.

Resource Expectations

All Members are anticipated to attend a minimum of 4 calls per year. Resource expectations will vary by individual and with delivery expectations. It is anticipated that 3-4 hours on average per month should suffice.

Details of the Initiative

The existing controlled waters and climate change subgroup was established in May 2021 and has reassembled in February 2024 to update the guidance published by the subgroup in August 2022³. Helen McMillan has agreed to take its leadership. The group will be sponsored by Melanie Lyons on behalf of the SoBRA Executive committee.

The need to incorporate the effects of climate change into qualitative and quantitative risk assessments is set out within ‘Managing and reducing land contamination: guiding principles (GPLC2) FAQ 8’ (2010), and the National Planning Policy Framework (NPPF, 2023). The Subgroup’s guidance (SoBRA, August 2022) gave a detailed methodology of how to do this in practice.

With this in mind, the aim of the Subgroup is to provide robust and practical advice on how to include for the potential effects of future climate change in the assessed stages of land contamination controlled waters risk assessment.

We have a desire for concise and practical guidance to support UK industry with:

- An overview of the UK regulatory legislation, policy and guidance, and rationale as to why inclusion for the potential effects of future climate change in the assessed tiers of land contamination controlled waters risk assessment is an important consideration. International approaches will also be considered. Periodically this will be reviewed and updated upon judgement of the subgroup.

³ SoBRA, August 2022. Guidance on assessing risks to controlled waters from UK land contamination under conditions of future climate change. Version 1.0.

- How the effects of climate change should be incorporated in the conceptual site model (CSM) and whether additional Source-Pathway-Receptor (S-P-R) linkages may need to be considered.
- Identifying climate change considerations within all tiers of land contamination controlled waters risk assessment (PRA, GQRA, DQRA)
- Signposting to useful data sources to aid the consideration of climate change in controlled waters risk assessment. Periodically this will be reviewed and updated upon judgement of the subgroup.
- Example case studies illustrating how the guidance could be used.

The Subgroup now aims to update the existing guidance as follows:

- Update the guidance to include a section on the impact of extreme weather events to land contamination controlled waters risk assessment and/or effects that may be induced by controlled waters.

Suggested Deliverables

0: In progress, 1: On Target, 2: Progress made but behind target, 3 No progress

Action	Owner	Key Measures	Priority	Target Date	Current Status	% complete
Min. 4 Teams calls per year to discuss issues and progress	All	A record of minutes and actions to be added to Teams. Dates for calls to be agreed early and added to diaries for the year	High	Monthly	Ongoing	100
Delivery of Progress Report No. 1	All	Max. 2 sides A4 including a summary of progress towards 2021 objectives; key learning lessons and easy wins	Medium	September 2021	Progress presented at SoBRA 2021 AGM	100
White paper guidance on inclusion of the potential effects of future climate change (chronic and acute) in land contamination controlled waters risk assessment	All	<p>A concise document which incorporates:</p> <ul style="list-style-type: none"> • Uncertainties/limitations of the guidance. • UK legislation, policy and regulatory guidance relating to climate change and risk assessment, and rationale for inclusion of the potential effects of future climate change in each tier of land contamination controlled waters risk assessment. International approaches will also be considered. • Review of literature sources about the effect of climate change on risks to controlled waters from land contamination. • How climate change may influence the conceptual site model (CSM) and what additional Source-Pathway-Receptor (S-P-R) linkages may need to be considered. • How to address climate change in PRA, GQRA and DQRA. • Provision of data sources / references to aid assessment. • Provision of a decision tree and example case studies to illustrate how the guidance could be applied. 	High	August 2022	Achieved	100
SoBRA Summer Workshop Report	JA, JW EE	<p>Summary of presentation and afternoon workshop given at SoBRA Summer Workshop 'The Climate Emergency: Practical Considerations in Brownfield Risk Assessment' on behalf of the subgroup:</p> <ul style="list-style-type: none"> • Climate Change in Controlled Waters Risk Assessment, presented by James Wilson. • Controlled waters and climate change guidance, facilitated by Emma Evans. 	Medium	June 2023	Achieved	100
Presentation of learning outcomes at min. 1 external conference per year	HMCM	Presentation of learning outcomes / progress	Medium	Sept 2021 March 2022	Achieved	100

Update existing guidance document with details on extreme weather events	All	Report update to include the following: <ul style="list-style-type: none"> • Uncertainties/limitations of the guidance. • Highlight key additional risks and processes caused by extreme weather events in relation to land contamination and controlled waters. • Possible risk management solutions – mitigation measures, monitoring and contingency planning. • Signposting to resources. • Provision of case studies. 	High	September 2024	Ongoing	0
Presentation of learning outcomes from updated guidance at min. 1 external conference per year and/or via a magazine article	TBC	Presentation of learning outcomes / progress	Medium	December 2024	Ongoing	0

Method(s) of Working:

As was agreed during the first workshop meeting, Members have volunteered to work in teams of around 4 strong to develop specific pieces of the guidance. The entire Subgroup has been providing peer review of the deliverables.

Anticipated Timescales and Outputs

1. Technical paper – April/May 2022 final draft to be presented to SoBRA Executive Committee for review prior to publication.
2. Presentations at conferences (including but not limited to those provided by SoBRA, SiLC, Ciria, AGS, Geological Society and regional contaminated land forums (e.g. SCLF, YCLF)
3. Updated technical paper – September 2024, final draft to be presented to SoBRA Executive Committee for review prior to publication

Note 1: The subgroup will aim to deliver a minimum of one publication per year, to be agreed annually with SoBRA's Executive Committee. Failure to deliver objectives may lead to the disbanding of the subgroup and reallocation of resources towards another group where delivery is more achievable.

Note 2: The Scottish Contaminated Land Forum (SCLF) (theme: land contamination, remediation and reuse in the circular economy to tie in with COP26) which was held in Glasgow on 8/9th September 2021 provided the opportunity to present our initial draft findings.

Note 3: Other subgroup promotion opportunities to be considered as they arise e.g. conferences, magazine articles.

Liaison with Executive Committee

1. Following the first meeting this document was to be submitted to the Exec Committee for approval.
2. Progress report to be delivered at SoBRA AGM.
3. Mel Lyons (SoBRA sponsor) to be copied in on all communications and invited to all meetings.
4. ToR to be updated on an annual basis.

Liaison with others (e.g. EA, SEPA, NRW, BGS)

1. Emma Evans to update Nicola Harries at Land Forum events, before deliverables are published and to engage with CL:AIRE.
2. Feedback from regulators gained through subgroup members (EA, SEPA, NRW).
3. Collaborate with EA/WSP project on "Informing regulatory considerations of climate change impacts and adaptation for waste deposit, landfill and land contamination" via attendance of subgroup members at workshops.
4. Collaborate with EA/CIRIA project on "Climate change effects on remedial activities and the fate and transport of select key contaminants including PCBs, PFAS, mercury, VOCs, asbestos" via attendance of subgroup members at workshop.
5. Roisin Lindsay to engage with BGS and CEH to determine how best eFLaG data can be accessed and used within controlled waters risk assessments.

Data Storage

A dedicated Teams channel has been set up for the subgroup to be used as a secure repository for the sharing of data. The Sponsor will annually transfer its contents to the SoBRA Dropbox that acts as a central repository of all Society-related efforts and communications.

By reminder, everyone who works for or volunteers with SoBRA has some responsibility for ensuring personal data is collected, stored and handled appropriately. Each member that handles personal data must ensure that it is handled

and processed in line with this policy and data protection principles. When data is stored electronically, it must be protected from unauthorised access, accidental deletion and malicious hacking attempts as per the requirements of our privacy policy.