



Project Groundwater Evaluation, Learning and Innovation Annual Report 2023

**From the Evaluation, Learning and Innovation
workstream, led by Axia Origin**

September 2023





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1.0 Foreword by Councillor Jilly Jordan

Groundwater flooding has too long been left to one side, as being either too difficult, too unusual or perhaps too expensive to deal with. Project Groundwater is changing this, and I'm delighted to see the progress that has been since its inception.

The scale and impact of groundwater flooding will soon be able to be quantified and understood like never before and the project is developing industry leading applications and ideas to better manage groundwater flood risk.

These technical advances are a positive step forward, but they can only be successful if they have the support and buy-in of communities affected by groundwater flooding. This is key to Project Groundwater, and I have been encouraged by the approach taken on the project to work with and alongside communities at every step. True co-creation of ideas with local communities will result in improved resilience to flooding, which is the goal of all our work on the project.

Collaboration with other authorities and organisations is key and I'm looking forward to seeing Project Groundwater grow through its participation in other projects and its long-term impact will be ensured with the proposed establishment of the new independent organisation, Let's Talk Groundwater Flooding. The need for change in the sector is clear and I believe we are making the steps in the right direction for those communities across the country affected by groundwater flooding.



2.0 Executive Summary

In an era where innovation is often taken for granted within ambitious collaborative projects, and the evaluation of value for money is sometimes assumed to be a given, the need for dedicated effort to foster innovation and learning cannot be overstated. We realised that we needed to add to the heart of our ambitious project a distinct Workstream for Evaluation, Learning, and Innovation (EL&I), serving as the bedrock for transformative progress. This executive summary encapsulates our journey through the inaugural year of this dedicated initiative, where we seek to shape the future by understanding the present.

Diversity Breeds Excellence

From an innovation standpoint, the inaugural year of the ELI workstream centred on establishing a Stable Base for our project. This was the outcome of a profound exploration of what innovation means within each workstream. Diversity, a hallmark of our endeavour, manifested in the distinct interpretations of innovation across various workstreams. For some, it meant embracing novel measurement systems for relational metrics in community engagement, while for others, it entailed the technical application of best practices unearthed during the project's course so far.

The beauty of this diversity is that it forms the Stable Base upon which we can build. With a clear understanding of what innovation signifies for each workstream, we have laid the foundation for cross-pollination of ideas and insights. Informal and formal interdependencies are taking root, allowing us to draw from each other's experiences and expertise.

Values based evidence for progress (not KPIs)

The overall evaluation approach includes the involvement of the Open University, who have hired a PhD candidate, paving the way for rigorous assessments relating to resilience and community engagement relating to groundwater flooding. Quarterly workshops, culminating in the first Annual Summit on 28th September 2023, have brought stakeholders together, facilitating comprehensive discussions.

The intentional focus on EL&I has enabled us to dissect these three vital aspects — evaluation, learning, and innovation — quarter by quarter. In this pivotal first year, we are pleased to report that we have embarked on a journey to evaluate our endeavours with a dedicated approach to indicators, guided by inclusivity and alignment with our core values. We believe we have set a potential benchmark for projects in various domains, an achievement explored in depth within this report.



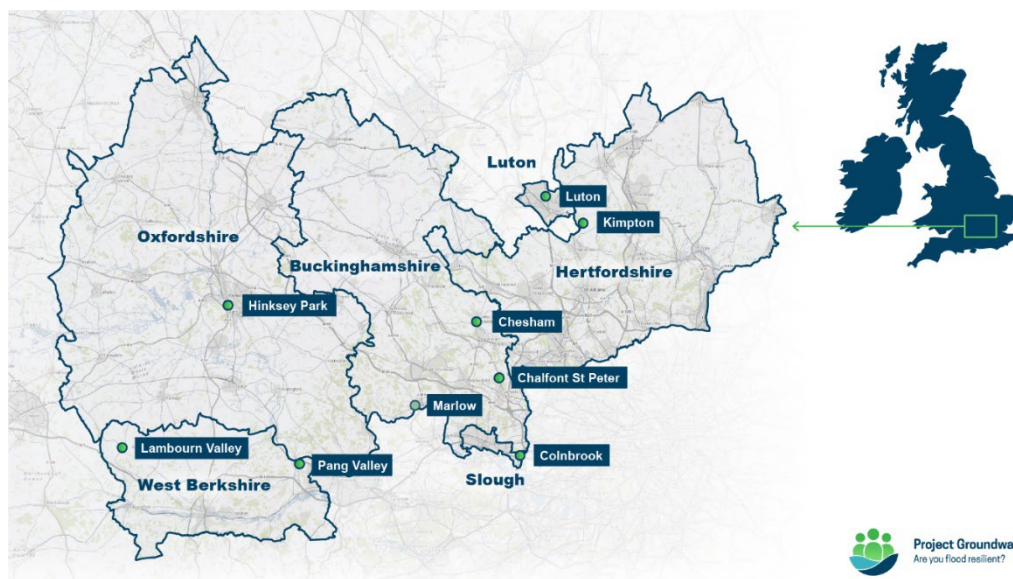
We would like to emphasise that the approach taken was patient, collaborative and thorough, directly addressing the widespread feelings of how work on indicators is typically a one-way experience that ticks boxes for other people, and not the dynamic, thriving and shared measurement system it could be.

Driving Results: The Road Ahead

As we transition from Year 1 of the ELI workstream, during which we have achieved a Stable Base, Year 2 aims to Drive Results. This becomes the direct mechanism by which we apply our lessons learned, and continuous learning about our workstreams' interdependencies becomes increasingly pronounced. Our first year's objective — to establish a firm foundation for evaluation, learning, and innovation — has been met. We have cultivated indicators for each workstream, providing a framework for alignment. Our documentation of diverse perspectives on innovation serves as a compass for future work. Most importantly, our ability to learn from one another and connect our efforts is steadily improving.

As we look to the year ahead, optimism pervades our outlook. We aim to strengthen ties with other projects, particularly those in the water sector, supported by different Environmental Agencies. Beyond this, we aspire to forge even deeper connections. But above all, our primary focus will be on propelling each workstream from a Stable Base to Driving Results, catalysing meaningful progress in innovation, learning, and evaluation.

In closing, our journey has only just begun, but our commitment to innovation, collaboration, and evaluation remains unwavering. We invite you to delve deeper into this report to explore the intricacies of our efforts, the lessons learned, and the promise of what lies ahead.





3.0 Evaluation, Learning and Innovation – The story of the last 12 months

Establishing an Approach to Evaluation, Learning and Innovation from a Rolling Start

In the vast landscape of ambitious collaborative projects, achieving innovation, learning, and effective evaluation is not just an aspiration; it is a necessity. Project Groundwater's success hinges on the ability to embody these principles, aligning them seamlessly with the project's vision, mission, and values.

The team at AxiaOrigin, a strategy and analytics consultancy, have been the custodians of the Evaluation, Learning and Innovation workstream since its inception. Yet, our first intervention on this topic occurred before the workstream was even defined. After an activation period for the project, when its identity changed from GRACE to Project Groundwater with a wider vision for collaboration in mind, we realized we had to create a more collaborative effort to channel the obvious pockets of excellent partnership and collaboration that were occurring across the touchpoints where the initial workstream overlapped.

An initial workshop in September 2022 brought this together, highlighting how valuable it was coming out of the pandemic when working practices had changed so dramatically, that we find structured ways to convene and work together on shared topics. This crystallised our understanding of exactly what we needed for a workstream that brought everything together, as it were; a workstream that we named Evaluation, Learning and Innovation.

The introduction of the workstream enabled us to present to all of our project partners an opportunity to come together on shared scope areas and solve for issues that apply across the entire partnership. This was the gap we did not realise we need to fill when we started. Yet it became obvious once we started looking further field with greater ambition, whilst connecting to the new Project Groundwater programmes emerging within the Flood and Coastal Resilience Innovation Programme (FCRIP) investment program.

We have approached the task of establishing and embedding Evaluation, Learning and Innovation (ELI) principles through the vehicle of quarterly workshops which enable the entire project team to convene, share ideas and become aligned on Evaluation, Learning and Innovation lessons and approaches. As this report reflects on the last year's journey through this workstream, we can delve into the pivotal moments that have shaped our understanding and approach over the last year.



Session One: The Foundation of Innovation

The ELI workstream's journey began with a profound realisation — Evaluation, Learning and Innovation should not merely be buzzwords, but a true reflection of this project's essence. The first step was crucial; to decode what innovation meant to each of the workstream's contributing to the project. Importantly, this exploration had to be far from clichéd and mundane; it had to align perfectly with the project's core values.

The narrative of Session One centred on our use of time-lapse videos as a catalyst for discussions about the multifaceted nature of innovation. In a post-pandemic world, where virtual interactions had become the norm, we designed our approach to evoke in-person interactions that cannot be replicated digitally. Our aim was not to confine participants to worksheets but to encourage them to look up, engage with one another, spark dialogue, and foster collaboration. We wanted them to interrupt, build upon, and innovate together. And this is precisely what transpired, enabling us to define a clear articulation of what needs to be true in order for innovation to flourish within Project Groundwater.

Charting a Course for the Future: Year-by-Year Articulation

Following our inaugural meeting, we embarked on the journey of synthesizing insights from the various workstreams. The result has been a year-by-year, five-year roadmap that defines what innovation should embody in each forthcoming year. We have categorised these themes, setting a trajectory for our project's evolution. Year 1's objective has been to establish a "Stable Base," setting the groundwork for subsequent years. Year 2 aims to "Drive Results," with Years 3, 4, and 5 focusing on "Connecting," "Sustaining," and "Giving" respectively.

The key to our approach was to genuinely comprehend what innovation signified for each individual and workstream, paving the way for the implementation of crucial ELI components. This journey of exploration led us to our second quarterly meeting, which focused on some of the most substantial work undertaken by the workstream in the last 12 months, focused on indicator development to measure and track progress for each workstream on ELI themes.

Reimagining KPIs: From Challenge to Opportunity

In the public sector, progress measurement has often been associated with challenges and frustrations. This is not just our perspective; it is an observation rooted in extensive governmental reviews. At the outset of our journey, it became evident that addressing these issues required a fresh perspective.

The culture surrounding Key Performance Indicators (KPIs) has been notably negative. To shed light on this, we asked our colleagues to humorously express their



feelings through GIFs and cartoons. What these creative expressions revealed is the shared sentiment that working on indicators could be quite the uphill battle. This underlined the need for change in our approach to measurement.

Aligned with our core values of **transparency**, **sustainability**, **innovation**, and **collaboration**, we decided to take a new approach to indicators development. We understood that being values-driven was the key to achieving success.

In this session, we approached the topic with a fresh lens, striving to explore alternative and creative ways to consider KPIs. We categorized them into two distinct dimensions: relational and transactional. Relational KPIs encompass 'softer' elements—qualitative facets of our project's impact, such as emotions associated with community resilience, including trust, confidence, goodwill, empathy, hope, and kindness. On the other hand, transactional KPIs involve more tangible, easily identifiable, and quantifiable data points. Our focus was on balancing these types of indicators across workstreams.

Avoiding Convention

Rather than deciding on the indicators ourselves and shaping the process accordingly, we opted for a different path. We resisted the urge to rely solely on experts to provide answers. This unconventional approach was rooted in our commitment to **collaboration** and **innovation**. Our journey was marked by open and transparent discussions, facilitated by tools like Miro boards and follow-up meetings. We used worksheets and placemats to work through the logic of our objectives. This collaborative process ensured that everyone's input was valued.

Embracing Change Over Time

Recognizing that measurement is a dynamic system, we understand that indicators would evolve with the project's needs. We have embraced this change, acknowledging that certain measures would gain importance over time while others might become less relevant.

In collecting indicators from each workstream, we do not emphasise a pure focus on the data itself; we emphasise capturing data about the data. This approach has allowed us to prioritise indicators meaningfully, aligning them with our project's values and the innovation themes year-on-year.

Our commitment to collaboration led us to recognise that current-year metrics might not fully capture interdependencies between workstreams. Nonetheless, we remain dedicated to working together to uncover these connections.



Embracing Digital Transformation

All of this leads to us being able to enable best practices - integrating Power BI visualisations with data entry forms to streamline data collection and analysis. This digital workflow enhances efficiency, sustainability and transparency across the project - allowing workstreams to monitor progress and have access to self-service analytics.

Above all, our approach is holistic in highly specific practical terms, especially with the wider FCRIP program in mind. The true essence of what makes Project Groundwater different is the vital importance of the resident and community's voice in the design of the proposed solutions within our project.

By elevating the importance of community engagement and its clear link to digital transformation methods and opportunities, we are ensuring that the voices of those affected by groundwater flooding (or potentially affected by future groundwater flooding), are embedded in our methods.

In addition to prioritising the voice of the resident and community, we have also given due care to the needs and input of our colleagues, ensuring that they feel heard and valued. In the first year, fostering this buy-in and collaboration is just as important as refining our metric - this aligns with our first-year innovation legacy theme of creating a **stable base**.

In redefining our approach to performance metrics, we've not only laid the foundation for effective measurement but also fostered a culture of **collaboration**, **innovation**, and **transparency**. This journey demonstrates that a values-driven, inclusive approach can transform the way we measure progress in the public sector.

The conclusion of the workstream's 12-month story

In conclusion, our journey through ELI has been one of self-discovery, collaboration, and transformation. We have challenged conventional norms, redefined our understanding of innovation, and embraced the power of alternative metrics. As we continue to shape the future, we are poised to drive results, connect with one another, sustain our momentum, and give back to the communities we serve. Our project's success lies not only in its vision but in our ability to innovate, learn, and evaluate with purpose and unity.

In the chapters that follow, we will delve deeper into our journey, sharing insights, challenges, and accomplishments as we work together to realize our project's vision.



4.0 Project Groundwater's workstreams and their contributions to ELI

4.1 Core team and Governance workstream



Governance is arguably the critical layer of the foundation. This foundation has been built on a team with diverse backgrounds, skills, knowledge and personalities. The team are committed to the values of Project Groundwater and actively works to ensure the values are embraced across the partnership.

Project Groundwater is classified as an innovation project due to its complexity and the high level of collaboration, coordination and flexibility required. A governance framework in an innovation project is arguably the critical layer of the foundation, and its processes ensure that a project is aligned with organisational goals, objectives, and values and has a bigger chance of being successful,

Developing governed ways of working from a position of trust, transparency, and collaboration has enabled us, so far, to innovate and be successful. We understand that one of the key enablers is the diversity embedded in the partnership. We have 36 different organisations making Project Groundwater's vision a reality. Each individual



skill, background and personality increases the chances of designing the right solution and achieving success.

It became clear that by creating an environment of trust where partners feel safe to express ideas and concerns, every virtual or in-person meeting allows a window of opportunity for new ideas and great possibilities. And keeping a record of those is essential for the project at hand, Project Groundwater, and future projects in Buckinghamshire.

Collaboration with other projects on the programme has been a key aim of the governance team. In particular, the two projects that are also focusing on groundwater have since adopted the Project Groundwater name and are based in Lincolnshire and Northumbria, respectively. The three projects have formed the Project Groundwater Network which actively works together to combine resources, ideas and outputs. This includes collaborating on the Resilience workstream, sharing modelling outputs, communications and engagement approaches and most significantly on the work on mental health and wellbeing.

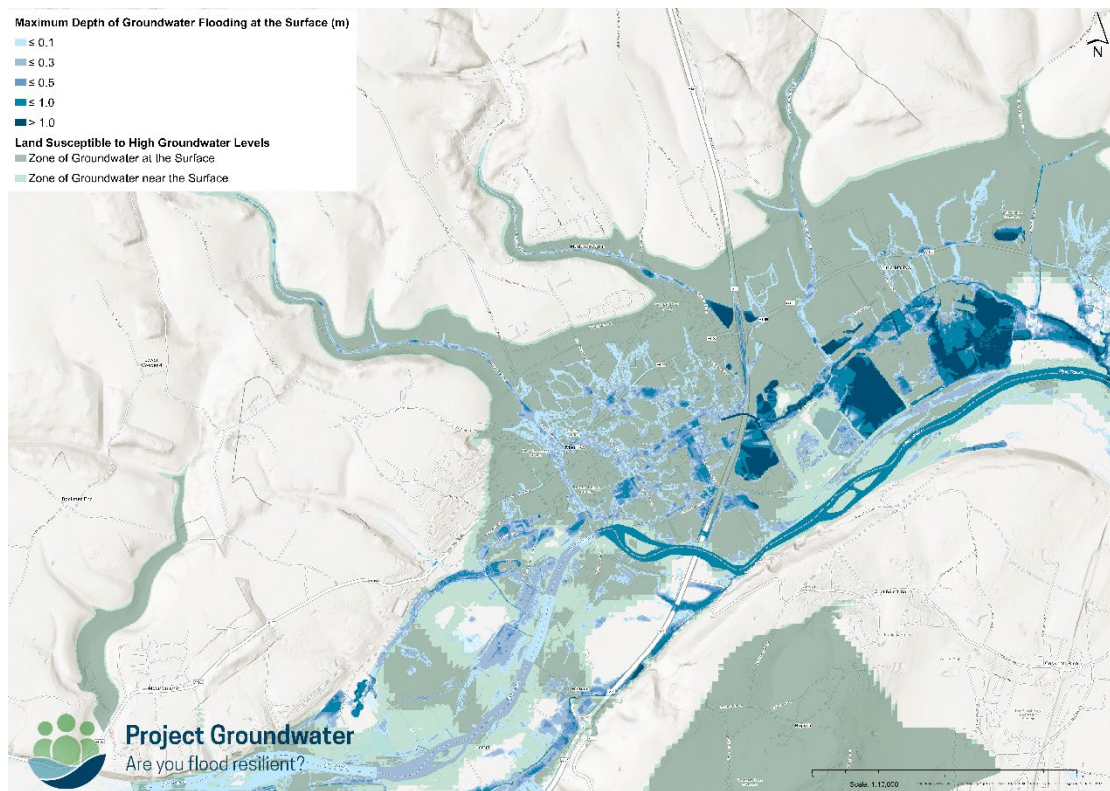
A new partnership has been established to progress the work on the impacts that flooding has on mental health and wellbeing. This is looking to develop an academic-led partnership to address three central questions:

1. What actions can we take to have the greatest positive impact on mental health before, during and after a flood?
2. How do we change our approach to focus on people not property?
3. What is the realistic economic cost of mental health – direct (the person) and indirect (others).

This is likely to be a long-term research project that will extend beyond the lifespan of Project Groundwater, which is a common feature of the larger changes that we think are necessary in flood risk management. With the long term in mind, the Project Groundwater Network is proposing to establish a new, national-level, independent organisation called Let's Talk Groundwater Flooding. This organisation, it is envisioned, will hold the outputs of all three projects and actively work to progress longer term ambitions such as national legislation improvements, national planning policy changes, adoption of a national set of groundwater flood risk maps, a consistent national flood warning service for groundwater flooding and also be an international centre of expertise and knowledge.



4.2 Modelling, Monitoring and Warning workstreams



The importance of monitoring, modelling and warnings

Traditionally, there has been a very limited understanding of the potential risk for groundwater flooding to impact on communities, with little data available or methods to assess the potential flood risk.

Prior to this project, Buckinghamshire Council had championed the need for further research and innovation to better understand the potential risks and impacts from groundwater flooding. Jacobs, working in partnership with Buckinghamshire Council, were able to start developing potential mapping methods to consider the potential extents of groundwater flooding, but without funding were unable to take this further and develop groundwater flood risk maps for broader communities that could be at risk from groundwater flooding.

With Defra's launch of FCRIP, there was the provision of a key opportunity to fund research. This held a promising potential for the further development of methodologies and tools to assess flood risk, and to support the communities affected by groundwater flooding.

Project Groundwater was established to develop innovative and sustainable solutions to groundwater flooding in order to share understanding and increase awareness of



groundwater flooding; to actively monitor flood events and develop warning systems and prepare communities to respond to and withstand flood events.

Jacobs have been enlisted as part of the project to establish a groundwater level monitoring network to inform communities at risk of groundwater flooding; develop methodologies to model and map groundwater flood risk and apply these to provide mapping across the six local authority areas; and help develop an integrated warning service for groundwater flooding.

The Story so far

For the Monitoring, Modelling and the Flood Warning workstreams, the pathway starts with **collaboration**. Initially through supporting Buckinghamshire Council and Project Groundwater partners to secure the FCRIP funding, and through technical collaboration with the Environment Agency and BGS to obtain data, establish the current understanding of groundwater flood risk, and the tools currently available.

This led to the technical **innovation**. A large part of these workstreams involve technical innovation, through looking at new ways to utilise existing monitoring data or new approaches to groundwater monitoring; the methods and techniques for modelling groundwater flood risk to generate community flood maps that are informative to the communities; and how these maps can be used to inform a real-time flood warning service to the communities. **The technical innovation has also involved exploring new technologies, such as whether drones-based ground penetrating radar can be used to map groundwater levels.**

This technical innovation allows us to build trust with the communities, through a **transparent** engagement process where we are aiming to present the outputs from these workstreams and gather and collate feedback so that this can be incorporated into the final maps and alerts service. This cycles back to the collaboration and innovation values, with the outputs from the community engagement informing how we move forward.

These workstreams are aligned with the **sustainability** value through the objective to produce a flood warning service, supported by the monitoring and mapping, that will inform and support the communities during future flood events and enabling the communities to become more resilient. Further measures such as identifying methods for improving monitoring and recording of groundwater flood incidents will help to ensure that this continues into the future.



Going forwards

Our hope and aspiration for the future is that this collaborative team of delivery partners will be able to develop and deliver a flood warning and resilience system to support the communities.

The integrated flood warning system aims to include a web-based flood warning application, other community communication methods, and community groundwater flood action plans. This system will be informed by the monitoring and modelling workstreams, through establishing an enhanced groundwater monitoring network, by developing methodologies to model and map the groundwater flood risk and applying these methods to provide a library of flood risk maps across the Project Groundwater area.

We will continue to explore technical innovation through new technologies and methodologies. This includes undertaking proof-of-concept trial surveys for the drone-based ground penetrating radar.





4.3 The Open University – Academia workstream

Going back to basics

Across the first year, the Open University have gone back to basics to look at and build a research foundation of ‘community resilience’ as a concept. In an early meeting discussion, the partnership struggled to define what ‘resilience’ means. Because of this, Dr. Karen Potter and Claude Nsobya have delved into the literature.

They have found that the concept of ‘resilience’ is all too often found to be vague and ambiguous, with an ongoing academic and policy debate as to what resilience means in practice. Their research is thus interested in the agency and capacity of communities, and the innovative ways we can work with, build trust, support and empower communities to be more resilient. Their early findings also highlight the importance of researching the importance of context.

Hence, Claude and Karen recognise and wish to further understand the nature of the partnership’s focus on ‘groundwater’ flooding. Groundwater flooding is currently under-researched and arguably the least understood within flood resilience policy. With a deeper understanding of this, together with the particular characteristics of our communities, the research will help facilitate our community-based resilience innovative actions.

The PhD Research

The OU initially considered the scope of the PhD research in close collaboration with the Project Groundwater team, placing communities at the heart to develop a proposal in line with the values of Project Groundwater. The successful candidate, Claude, has since been building the foundations for his PhD research, working with his supervisory team of Karen, Leslie, Alice (UWE), Jed and Luciano.





The Environment Agency's National Strategy frames resilience in terms of "the capacity of people and places to plan for, better protect, respond to, and recover from flooding...whilst all the time adapting to climate change" (EA, 2020, p25). Claude has traced resilience 'capacity' through the academic literature for a deeper understanding of what this means.

Because of this, he is looking at how flood risk management measures can influence a community's capacity to resist, absorb, recover and adapt in the under-researched groundwater flooding context. Claude has raised many questions from the literature, such as whether resilience capacity as described in existing literature (and policy) aligns with the actual experiences and perceptions of communities and those engaging with communities? Can community engagement be truly inclusive, and if so, how is inclusivity achieved? Can there be early and long-term involvement of communities, and if so, how is it ensured?

His case study research will be within the partnership, but also extends beyond to collaborate with another FCRIP project, Project Groundwater Northumbria.

Claude has also found most research studies focus on the perspectives of countries in the Global North, leaving a lack of understanding of resilience challenges and strategies in the Global South. His third case study will be with a government led project in Uganda. His research over the coming years has the potential to share learning at an international level with other authorities and communities. He has submitted an abstract to an international conference.

A Qualitative and Participatory Approach to Developing Indicators

Karen has been collaborating closely with the Community Engagement Stream lead Dr Sarah Fitton. They have co-authored a Working Paper with the intent to stimulate a discussion and debate within the partnership as to what 'community resilience' means to us. A common and greater understanding of the elements of and mechanisms to enhance resilience helps inform how we practice and capture social innovation.

Karen is building a foundation for participatory research, working across streams to define research questions together concerning community resilience and engagement. She will seek to transform experiences and challenges into data, to analyse, to then create new knowledge. This can help us monitor and evaluate what we are achieving, but research can help us be more informed about any challenges, what might cause them and how we can prompt new ways of thinking to innovate further to overcome them. This working paper to define resilience also built the foundation for the next phase of the research on indicators.



A recent EA report (Hutter and Bailey, 2022) recognises that community or social resilience related indicators are crucial but are currently neglected and unexplored. Also, indicators under development to date have been tested across different contexts, but not the groundwater context. As part of the partnership's involvement in piloting indicators with the Environment Agency, Karen is looking to collaborate across streams and zoom in on the opportunities for qualitative resilience evaluation. Which indicators could better represent the resilience of a community, for example, monitoring awareness and understanding of risk? Can we also pilot innovative participatory methods to capture data with our communities? Both researchers will look to disseminate findings and share learning through papers and conferences, contributing to the legacy of Project Groundwater.

4.4 Resilience workstream



RESILIENCE & FLOOD RISK

A background to Resilience in the context of Project Groundwater

One of the core objectives of Project Groundwater is to make communities more resilient to groundwater flooding. Although Property Flood Resilience (PFR) measures have become more widely promoted and accepted, their suitability for managing and mitigating the unique mechanisms and durations of groundwater flooding is poorly understood. Project Groundwater seeks to tackle these issues whilst delivering resilience measures within communities impacted by groundwater flooding across Buckinghamshire and the Chiltern Hills.

RAB Consultants specialise in Resilience and Flood Risk, and when the opportunity to lead the Resilience Workstream arose in late 2022, we considered our knowledge, experience and expertise would perfectly compliment the requirements of the role. We were subsequently delighted to be appointed as Resilience Workstream lead in April 2023.



Since our appointment the initial focus has been engaging and collaborating with the wider project team to understand progress, ongoing work, and plans and priorities for the upcoming year and beyond. This has culminated in the development of a Research and Development Plan which:

- 1) Sets out the Resilience Workstream objectives, milestones and tasks over the lifetime of the project;
- 2) Identifies the needs and opportunities for collaborative and transparent working; and,
- 3) Provides an indicative programme to allow progress to be monitored.

The Research and Development Plan will maintain a focus on the project objectives and ensure opportunities to drive innovation and steer best practice are maximised. As a live document the Plan will evolve as the direction and focus of the resilience workstream becomes more well defined in the months ahead.

Year one aims

Over the next year the initial focus is to build a solid foundation of knowledge and experience to steer the research and development of suitable and effective groundwater flooding resilience measures. This will be achieved by creating an open library, or Knowledge Base, which will provide transparency and justification for the direction the workstream takes over the course of the project.

The Knowledge Base will collate relevant deliverables produced by other workstreams, including outputs from the Modelling and Monitoring workstreams, as an understanding of the flood mechanisms, risks and hazards within each community are critical to inform the required parameters and specifications of the resilience measures ultimately developed.

We will visit the pilot communities to engage with residents and businesses to gain a clearer understanding of how they have been impacted by flooding historically, and to understand individual and collective concerns and requirements when considering flood resilience measures. We will work closely with the Communication and Engagement workstreams to maximise opportunities to visit and engage with the communities, and to gather relevant data to inform the development of resilience measures.

Collaboration and alignment as we go forward

Working groups will also be setup to collaborate with relevant existing Project Groundwater partner organisations, and additional third-party organisations including consultants, manufacturers, suppliers, and installation contractors. Regular meetings



of the working groups will allow experience and knowledge to be shared, and to identify risks and opportunities to inform the development, design and implementation of innovative and sustainable flood resilience measures.

We will work closely with the Placemaking workstreams to agree our respective remits and interdependencies, and to identify opportunities for collaboration, joint working and knowledge sharing.

This large data gathering exercise will ultimately lead to the preparation of a comprehensive Gap Analysis report. The report will seek to identify opportunities for further research and innovation, which will help to achieve the goal of plugging the knowledge and research gaps relating to groundwater flood resilience and ensure effective flood resilience measures can be developed for each community in the years ahead.

4.5 Engagement & Communications

Ensuring community preparedness through a collaborative approach

Stakeholder and community engagement is a founding principle in the mission of Project Groundwater. Working together to share understanding and increase awareness, as well as to develop **innovative** solutions and help communities prepare for future groundwater flood risk means **collaboration** is vital for the success of the project.

Collaboration was the point at which the Engagement Workstream began to develop the engagement strategy for Project Groundwater. During the first year of the project, time and effort were given to understand what the engagement principles of Project Groundwater were to be, how the engagement process could be collaborative and who the relevant stakeholders and communities were to target and collaborate with.

Innovation within the project

Taking this much time early in the project process to develop the engagement process that fits with the ethos of the project overall, and to understand the relevant stakeholders is innovative in itself. It is not common practice for a project to be dictated by the engagement process so much, and for the social aspects of flood resilience to be valued as highly as the technical aspects.

Consequently, during the first and second years the Engagement Strategy was produced which included a comprehensive stakeholder mapping exercise and was closely aligned with the Communication Strategy. These documents helped steer the



approach for all Partners regarding engagement with communities, stakeholders, workstreams and the wider Partnership.

Establishing trust with local communities

In October 2022, Groundwork South was appointed to work on the Engagement Workstream as the Engagement Delivery Partner for Project Groundwater. Groundwork South were appointed to provide local knowledge and experience to the delivery of engagement events. This was seen as important by the project team to help develop relationships and trust with the local communities, helping to build collaborative, locally led flood resilience within communities. Through trust and strong relationships, communities and stakeholders are not likely to want to work with the project, inhibiting the project's aims of strengthening community resilience to groundwater flooding.

In December 2022, a Community Readiness Survey was developed by the Engagement Workstream to further understand the local community perspective and knowledge of groundwater flooding, as well as to provide an indication as to how willing and able the local communities are to engage with the project. The survey ran for close to 3 months and was shared both online and in person. The survey received 416 responses and was analysed by the Engagement Workstream. The results were used to inform the development of an Engagement Plan for each local community.

This was an innovative approach, recognising that each community is unique in both its characteristics but its experiences of flood risk. Therefore, an engagement plan that generically covered all 9 communities would not be successful. This resulted in nine separate plans being developed that reflected the insight gained from the survey, as well as local knowledge that tailored the engagement approach for Project Groundwater to the unique needs and characteristics of that community using innovative engagement methods.

Enabling shared learning with other workstreams

The survey results are also very pertinent for all the workstreams, and understanding this opportunity for collaboration led the Engagement team to innovatively widen the scope and use of the survey results. In July 2023, a workshop was organised and held with all the workstreams to understand the results further from the perspective of other workstreams and identify interdependencies between each other's work and how these influence future engagement opportunities.

The Workstream, at the time of writing, has identified a schedule of local community events that they are attending to raise awareness of groundwater flooding and Project Groundwater. At the same time, they are working collaboratively with the Mapping,



Modelling and Monitoring Workstream to engage on the flood risk maps produced, prompting community members to provide insight and feedback into the content and format of the maps. The feedback will help inform whether the maps produced are useful and understandable for the local communities.



A commitment to transparency for better decision making

A key facilitator of trust and the development of good, long-lasting relationships is transparency. It is critical for the Engagement workstream, and Project Groundwater, to be transparent in everything they do including how decisions were reached for internal and external project relations. Subsequently, the Engagement Workstream is using the engagement recording software Participatr to record engagement with stakeholders and communities. This allows internal project team members to understand what has happened and what discussions have taken place, but it is also a record for communities and stakeholders as to what engagement has been carried out and how that engagement/collaboration has informed the direction of the Project.

The long-term legacy aspiration of the Engagement Workstream is to leave the 9 communities with an enhanced understanding of groundwater flood risk and measures to help increase their resilience, so they can look forward to a more sustainable future.



The Engagement Workstream has also been involved in the development of the following documents:

- The General Process Document
- The Incident Document
- The Equality Impact Assessment
- The first draft of a Working Paper examining the theoretical position of resilience, community resilience, innovative community engagement and its links with social value.

4.6 Placemaking workstream

The aims of the Placemaking workstreams are to ensure that the measures to provide resilience and resistance to groundwater flood risk will also create better places within the communities they protect. In the long term it will also ensure that groundwater flood risk is suitably covered in the planning process. The workstream has been one of the later workstreams to become fully operational, following a few challenges over the last year. Yet much progress has been made over the last 12 months.

Over the course of the last year, the JBA has completed detailed scoping work for the Placemaking workstream. Following the delivery of the reports, it became clear that the workstream needed to be split into two to make the scope of work identified possible. Following approval from the project board, the workstream has been split into two sub workstreams, Planning and Nature Based Solutions (NBS). Following this we have worked closely with the legal and procurement teams to set up the tenders for the required works.

Placemaking as Planning

The Planning workstream has been out to tender, and a successful candidate has been appointed. TJAY Consultancy will start preparing guidance related to groundwater flood risk for the Local Planning Authorities (LPA) in the Project Groundwater. In the long term, they will look to see how Project Groundwater can influence national policy and legislation relating to groundwater flood risk. A key value of Project Groundwater that will be vital to do well in this workstream is collaboration. This is something we strongly considered in the Tender process, and we are very confident that TJAY Consultancy will align well to this value. Collaboration will be key to ensure that suitable guidance is created across the Project Groundwater area, that is suitable for each LPA, and later on, ensuring that Project Groundwater is part of national discussions taking place to influence policy and legislation drafting.



Placemaking as Nature Based Solutions

The NBS workstream is currently out for tender. We are anticipating bids from a number of leading consultancies to take this work forward. A large part of this work will be to trial NBS and see their effects in regard to groundwater flood risk. As the scoping work completed by JBA showed, there is very little research and monitoring that has been completed to determine how effective NBS may be in reducing groundwater flood risk. Therefore, the successful workstream lead will need to be extremely innovative when proposing NBS measures, and must ensure that effective monitoring plans are created so that the effects of the solutions can be seen. Another key part of the workstream will be applying for and securing funding in order to develop any NBS schemes further.



5.0 Conclusion and look towards next year

Advancing Towards "Driving Results"

As we draw the curtains on this year's annual report, we find ourselves at the threshold of an exciting journey ahead—a transition from Year 1's objective of "establishing a stable base" to Year 2's mission of "Driving Results." This progression represents the dynamic nature of our project, where growth and evolution are not just encouraged but deeply ingrained in our ethos. We embark on this path with optimism and a clear vision of the road ahead.

Quarterly Meetings: The Catalyst for Progress

Central to our strategy for the coming year will be a series of quarterly meetings, each meticulously designed to address specific subjects that align with our overarching objectives. These meetings are not mere formalities but vital platforms for collaboration, where ideas are exchanged, perspectives are broadened, and strategies are refined. It's through these gatherings that we will collectively chart our course towards "Driving Results."

The subjects of these meetings will be carefully chosen, building upon the insights gleaned from our annual summit. The September 2023 annual summit serves as a cornerstone, providing the context and direction that informs the agenda for our quarterly interactions. It's a testament to our commitment to adapt and innovate in response to the evolving needs and opportunities within our project.

Enhanced Workstream Collaboration: A Key Imperative

As we look ahead, a central tenet of our work will be the improved connection between our various workstreams, particularly in areas where shared opportunities abound. Collaboration has always been the lifeblood of our project, and we recognize that our greatest achievements emerge when we break down silos and harness the collective genius of our diverse teams. The workshop exercises and objectives for the year ahead will reflect this renewed emphasis on cross-pollination and synergy.

Building on Year One: Digital Innovation and Product Delivery

One of the exciting prospects on the horizon is the progress we anticipate in the digital front end for the Monitoring, Modelling, Alerts, and Warnings workstreams. This presents us with a unique opportunity to explore digital innovation and product delivery



as integral components of our Year 2 journey. The digital landscape offers vast potential, and we are poised to harness it effectively.

However, it is crucial to emphasize that our progress and direction will be shaped by the dynamic interplay between our project and the insights derived from the summit. The summit is not a mere formality; it is our compass, guiding us toward the most pertinent and impactful areas of focus. The discussions and interactions at the summit will play a pivotal role in shaping the agenda for the upcoming quarterly workshops.

Leveraging Indicators: A Blueprint for Success

A defining feature of this year has been the development and agreement upon indicators. In Year 2, we will have the opportunity to put these indicators into practice, reviewing and refining them as we progress. The quarterly workshops will serve as platforms for gathering feedback on the effectiveness of these indicators, ensuring that they remain aligned with our objectives and adaptable to our evolving needs.

Sharing Best Practices: The Power of Innovation

As we look forward, we are not just focused on driving results within our project; we are also committed to sharing our potential best practices with other projects. Innovation is not a solitary endeavour; it thrives in a community of knowledge sharing. We aspire to be catalysts for innovation in the wider landscape, leveraging our experiences and insights to drive results in other contexts.

In conclusion, the year ahead, with its "Driving Results" objective, aligns seamlessly with the groundwork laid in Year 1. We have established a stable base, agreed upon indicators, and fostered a culture of collaboration. Now, we have the opportunity to turn these foundations into tangible results. The road ahead is promising, and our success will hinge on our ability to adapt, innovate, and engage effectively.

As we embark on this new phase, let us remember that our journey is not defined solely by the destination but by the steps we take along the way. It is in the process of innovation, learning, and evaluation that we truly make progress. Together, we are poised to drive results, break new ground, and shape the future.

We look forward to an exciting year ahead for Project Groundwater.