



CASE STUDY · SEPTEMBER 2026

WHEN THE WATER RISES, WE RESPOND TOGETHER.

*How two Vermont floods revealed what disaster coordination requires.
These experiences laid the groundwork for what we're building.*

THE MOMENT

JULY 10, 2023. A CITY UNDERWATER.

This is not a report about technology. It is a report about what happens to people when a disaster arrives and what happens to the systems meant to help them.

The Winooski River crested at its highest recorded level on the morning of July 10, 2023, sending water rushing through the streets of Montpelier, Vermont. The waters swelled around the smallest state capital in the United States and a community of 8,000 people, all with no prior experience of a flood at this scale.

Within hours, hundreds of residents needed help. Basements were flooded. Roads were impassable. Elderly residents could not leave their homes. Families were calling anyone they could think of to ask where to go. Volunteers were appearing at the edge of town with no idea where or how to contribute.

There was no system. There was no platform at the ready. There was a parking lot, a folding table, and a small team of people who decided to figure it out, including Marek Zajac, who in the days that followed built a volunteer coordination system from scratch that would serve the community for weeks.

"The most critical hours of a disaster response are the first ones, exactly when no organization is ready, no platform is active, and no system has been tested. What we built in that parking lot worked. And it shouldn't have had to be built in a parking lot."

MAREK ZAJAC · 2023 MONTPELIER FLOOD RESPONSE VOLUNTEER COORDINATOR

THE SYSTEM THAT EMERGED FROM NECESSITY.

What was built in the days following the July 2023 flooding was not designed. It was discovered. Each element emerged from a specific coordination failure or community need moment to moment. Together they formed the blueprint for what we're building at Shock.

The central innovation was **task-based, address-sorted volunteer coordination**, what became our "timing and address-based task queuing." Rather than organizing volunteers by type or sending them to general areas, every volunteer was matched to a specific address, a specific task, a specific timeframe, and given a clear way to report changing conditions from the field.

"All volunteers funneled through the same dispatch table, creating an instant shared context before anyone went anywhere. Strangers became a team before they arrived at the door."

MAREK ZAJAC · DESIGNER AND COORDINATOR OF THE VOLUNTEER FLOOD RESPONSE COORDINATION SYSTEM

The system also established a critical principle: **multiple intake paths are essential, not one**. Online form, voicemail and phone support line, in-person at the hub, internal municipal relay: each served different community members. The majority of residents who received help never interacted with any technology system. Their needs were heard by canvassers who knocked on doors and relayed to coordinators in real time.

And after the floods and immediate need had receded, a surprising truth emerged: of the tracked volunteer assignments, fewer than 1% came through online sign-up. The rest came through community hubs, walk-ins, and word of mouth. The system that worked was not the one that lived online. It was the one that met people where they already were, person to person, and got out of the way of human connection.



The Montpelier community hub on State Street, days into the response. The line of high-vis vests under three side-by-side tents, where every volunteer began their day.

THE PLATFORM ANSWER

THE NUMBERS, KEPT BY HAND.

Every figure here came from a note, a binder, a sign-in sheet, a messaging channel, a hand-written task list. The lived reality exceeded 5,000 people across the response.

What these numbers reveal is what we already know: at heart, the spontaneous help from community is valuable when given a way to respond together. The system was lived first and designed second. While coordination is always hard, what we are building is honest to everything a coordinator has to hold at once, so the real connections can stay present and human. A platform that meets people in their hardest day owes them honesty about what happens in those moments to their information, and we are taking that seriously. What we are building emerged from what each person's experience behind the numbers taught us.

WHAT THE RESPONSE HELD

5,000+

VOLUNTEERS FOUND
WAYS TO HELP

\$200K+

REIMBURSED TO
EACH COMMUNITY

14,101

HOURS SIGNED
AND VERIFIED

282

ADDRESSES
SERVED

813

DISTINCT
TASKS

24

DAYS OF ACTIVE
RESPONSE

EVERY DESIGN DECISION HAS A SOURCE IN EXPERIENCE.

What we're creating is not from a whiteboard. Every feature, every data structure, every access level traces back to a specific failure or success in the 2023 Montpelier and 2024 Plainfield responses.

PROBLEM LIVED

No platform ready at day zero. First hours spent building from scratch.

Most vulnerable residents never touched any system, their needs invisible without canvassing.

Shift changes lost context. Two people held the entire system in their heads.

FEMA records required manual compilation after the response. Significant administrative burden.

Public communications scattered across channels, improvised, sometimes inconsistent.

THE SYSTEM SOLUTION

→ Pre-crisis adoption embedded in Emergency Action Plans. Platform active the moment disaster strikes.

→ Multi-channel intake, phone, voicemail, online, canvasser relay. Serves people who don't know it exists.

→ Built-in shift handoff documentation. Systematic task notation. Distributed system knowledge.

→ FEMA-compatible records generated automatically from operational data. Reimbursement-ready when the response ends.

→ Centralized public messaging. One place for coordinators to push community updates across channels.

PLAINFIELD, VERMONT · JULY 2024

ONE YEAR LATER.

Our communities were tested again in July 2024 when flooding struck Plainfield, Vermont. The municipal integration was looser, with significantly more community leaders newly stepping into coordination roles. Some of what worked in Montpelier could be replicated, and some had to be rebuilt.

What 2024 revealed was the cost of *re-discovery*. Coordinators new to disaster response spent precious early hours reaching for tools that did not exist. Institutions that hadn't known how to organize had to onboard under pressure. The lesson from Plainfield was not new architecture, it was the urgency of systematic preparation.

The experiences and data from 2024 reinforced what 2023 had taught: the moment that matters most is the moment *before* the disaster, when relationships, skill building, and readiness can be confidently built into everyday community life.



Riverbank damage to homes during the 2024 Plainfield flooding, where the water took not just the houses but the ground they stood on.

WHAT WE LIVED, MET WHAT WAS MISSING.

What we're creating exists because two things came together.

The first is lived experience. The system that worked in 2023 and 2024 was discovered in real time, by a small team holding a community through the worst water deluge the Winooski had ever sent. The architecture in this document, the audiences, the access tiers, the multi-channel intake, the address spine, the derived FEMA records, have emerged from those responses.

The second is a team eager to build the tool that was missing. Shock is a nonprofit, mission-driven technology startup building tools that enable real-world communities to take ownership of their futures. That mission and the lived experience of the response met, and the platform began to take real shape.

Neither half could have done this alone. Lived experience without a team to build the tool is a memory. A team without lived experience builds something close, but not quite, what's needed. Together, the essential work becomes possible.

Our system will serve the six distinct audiences of a disaster, each with their own journey through it. It is not built for one user. It is built for the whole moment.



Marek Zajac and Saul Costa. The lived experience of a response, and the team who could build what was missing.



Flooded roadways during the July 2023 Montpelier flooding, a car submerged where a street used to be.

THE NEXT FLOOD IS COMING

THE WINDOW TO PREPARE IS NOT UNLIMITED.

Flood seasons everywhere are arriving every year with increasing force. The communities that adopt a thoughtful system before disaster strikes are the ones where the first 72 hours harness community energy.

Preparation is not waiting and talking. It is the relationships, individual skill building, and readiness built into normal community life, ready to activate in the next emergency.

THE INVITATION

WHAT READINESS LOOKS LIKE, BEFORE DISASTER ARRIVES.

Adoption looks different for different communities. And in each village, town, or city community: the preparation is the adoption. When done thoughtfully before disaster arrives, it is what makes all the difference in the first hours.

For municipalities and emergency planners

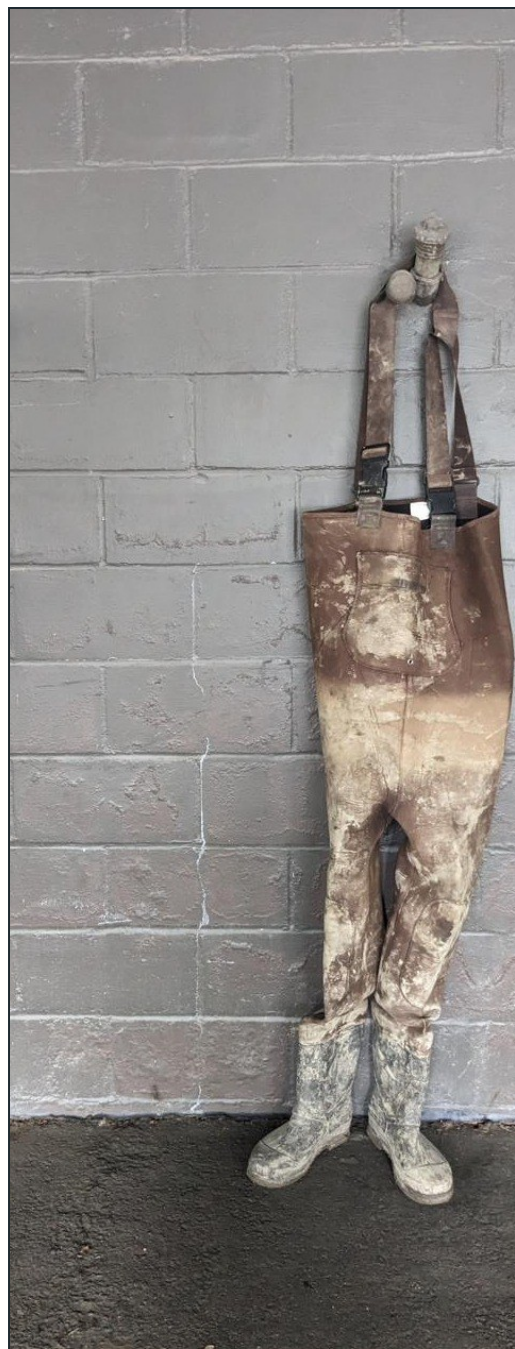
A municipality embeds a systematic platform in its Emergency Action Plan and designates a coordinator. In doing so, it places coordination readiness into the hands of every resident and organization in the community simultaneously.

Schedule a conversation. Discuss EAP integration, FEMA record compatibility, and what municipal adoption looks like for your community's specific context.

For community organizations and institutions

A community institution prepares as a center of activity, names a point of contact, and is ready to activate the moment it's needed. The most powerful thing institutions can do right now is to be known and familiar with a systematic platform before the next flood season begins.

Prepare your organization systematically. Shock will follow up with how community institutional onboarding is served in our system.



Boots and waders hung to dry after a day of recovery work, still carrying the mud of someone's basement.



ABOUT SHOCK

Shock is a Vermont-based nonprofit that creates tools to bring people together where it matters most: in person. Saul Costa founded Shock in 2023, after selling his education technology startup and moving back to Vermont to build in the nonprofit space. The team has since released two community technology products: Bee, an activity discovery app covering Vermont's community event ecosystem, and Meadow, a volunteer coordination platform now piloting statewide. Both grew out of the same lesson this report documents: communities don't lack people willing to show up. They lack the systems to connect them when it counts. Learn more about the work at shock.ngo.

<https://shock.ngo> · <https://joinbee.app>

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