THREE FIRE MOUNTAINS

Stories of Wildfire and Recovery in California

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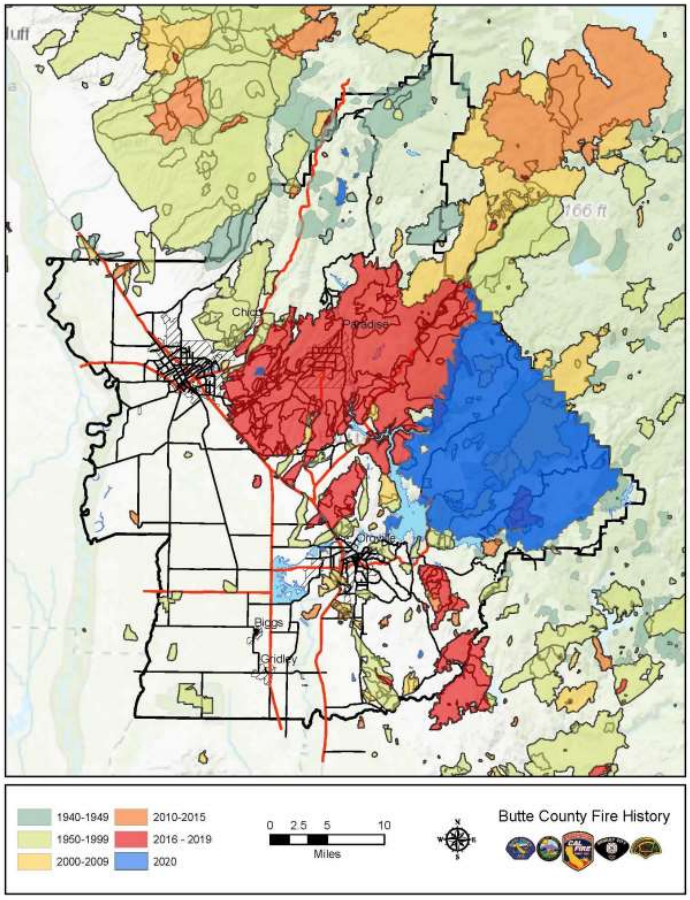
For my parents and all fire survivors,
especially the Paradise ladies.

My parents on November 18, 2018, while evacuated from the Camp Fire.

Introduction

This paper was prepared over the course of a Policy Fellowship for Stanford Impact Labs between November 2023 and October of 2024. Stories are personal accounts of living and working in wildfire and recovery in Butte County, California, located 70 miles north of Sacramento in the foothills of the Cascade and Sierra Nevada Mountain Ranges.



Interview material was collected from willing individuals and agencies who shared their experiences and perspectives understanding they might appear in fellowship outcomes. Data and graphics are from publicly available information. Anecdotes about individuals, including case studies, are presented without personally identifying information. Instructional material comes from the Butte-Glenn Community College Training Place and their sources, except as otherwise referenced. All photos were taken by the author or are shared with permission. The map shown here is from the 2021 – 2025 Community Wildfire Protection Plan Map

The intent of this paper is to examine a variety of experiences to explain the hardships of wildfire and the successes of recovery, focusing on funding, programs, and processes meant to achieve community viability after disaster. All opinions expressed are my own and do not express the opinions of Butte County. The fellowship deliverable is the Triage Tree.

Recent Butte County Disasters:

- 2024 – Thompson Fire, Park Fire
- 2021 – Dixie Fire
- 2020 – North Complex Fire, COVID-19 Pandemic
- 2018 – Camp Fire
- 2017 – Oroville Spillway Incident, Wall Fire, Ponderosa Fire, LaPorte Fire

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FOREWORD

My co-worker was a 911 dispatcher for twenty years and calls the Camp Fire the best and worst day of her career. Heroism and horror. I consider leaving twenty-five years in non-profit associations to work in disaster recovery the best and worst decision of mine.

I set out to write a clean, concise paper offering tips and tools for working in recovery. I envisioned using my limited knowledge and experience to light a path through the wilderness of wildfire, making the journey simpler and less painful for others. I used to say recovering from the Camp Fire was the hardest, most expensive process imaginable because nobody had done it before. Now that I've lived through additional fires with different complications, I see how futile it is to try to make recovery less impossible.

I find hardship less hard when I say out loud, "this is hard." I admire people who do hard things more when they admit how hard they're working or how hard the work is on them. I no longer believe the purpose of this project is to make recovery less hard, I believe it's meant to show the suffering so that when others suffer through this they're not suffering alone.

This paper contains descriptions of animal pain and death, of suicidal thoughts, and of succumbing to alcoholism in pursuit of recovery. I thought writing a Stanford fellowship paper would mean I'd keep my topics light and easy, safe and contained – but wildfire has a way of inserting its wildness into just about everything, and I'd be faking my entire disaster recovery experience if I pretended to be happy about it.

I feel like I've lost everything to this profession but have gained the whole world. I can no longer access my diplomatic, yielding, people-pleasing self; the rage has burned down my social buffers. I missed a dear friend's birthday recently and didn't realize it for a month. I am not tied to people in the same way I used to be, outsourcing my thoughts and feelings so they live with someone else. I am alone on this island, entirely surrounded by the toughest, harshest, most sweeping feelings I've ever had. I'm here with myself, in my own body – a grown-up with a strong set of opinions and a voice to go with it.

Wildfire did this to me.

I was shopping with my girls today on the second floor of a local antique store when a woman's voice floated up. "My house didn't burn down," she said, matching the sorrowful tone of the conversation. I realize we're in an era when houses are burning from dozens of fires, not just one identifiable tragedy. Tomorrow at work we're holding an information session for survivors of four small fires that occurred this summer. The bigger fires have their own meetings. In two weeks, we're hosting a State delegation of housing representatives who, after reviewing the list

of burn scars to visit, decided on the most recent to witness debris and tree removal rather than reconstruction.

Fire. Is. Everywhere.

And yet.

Having written this, I know what keeps me motivated. I know my definition of recovery. I know why I keep showing up. I don't need to interview folks from across the state and read books and articles to find the answer – I need only to look inside of myself. And as much as I want to jump to the end and give it away, the story of wildfire comes first.

Heidi and Violet at Johnny Appleseed Days, Paradise, California, October 2024

THE FIRES

Jamie lived on a corner in Petaluma with her younger sister, Karen. Her mom and my mom were friends so we were friends. My parents had just gotten a divorce and though we'd moved to another city in the Bay Area, Jamie's house still felt like home.

One day I found myself in Jamie's bathroom face-to-face with National Geographic. All I remember is looking into the children's eyes, seeing their bones and blank faces staring back at me with no performative expression. My house didn't have these pictures and I hadn't witnessed emaciation in my community, so I had no framework for taking this in.

As startling images do, this one imprinted itself permanently in my mind and expanded the bounds of suffering for me in ways I still struggle to understand. Four decades later, the Camp Fire did the same.

Camp Fire, November 8 – 25, 2018

There is no preparation for witnessing tragedy unfold, for the shock and horror of taking in the unimaginable. Though I had watched my share of big-screen movies by the time I saw the Camp Fire, nothing prepared me for an entire mountain in flames nor the fear the fire may reach my children before I did.

Humboldt Fire, June 11 – 21, 2008

A decade before, I'd driven through fire with my three-year-old in the back seat. It was 2008 and the Humboldt Fire was racing up toward Paradise in a billowy blue-black cloud. After picking up Adela from preschool I had her wait in the car while I grabbed a few things from home. I forgot "Naked Baby" which is how Adela ended up with two baby dolls when I bought "Bee Baby" in Target a few days later to appease her.

That afternoon a thick line of cars was gridlocking its way up the ridge. Because I could see the smoke downhill, I wondered why people were moving in the same direction as the fire, heading straight uphill where the roads got narrower and eventually turned to gravel. I didn't think at the time that remaining on the perimeter of fire and moving faster than it could be the best and only strategy, nor that law enforcement might be directing people that way. I had no concept of how or why a community moves during fire, I only thought about getting myself and my child into the valley where we'd have options. At this point, I was three months into life in the Sierra Nevada foothills thinking surely the best route out was down.

As I moved toward the intersection of Pearson and Clark Road, my decision point, a sedan got in line in front of us with a goat wedged in the back. I pointed this out to Adela in my sing-song mom voice, then rolled down my window and shouted across to the cars, "is the road still open

down there? Can we get out?!" It was the kind of thing you hope never to shout within earshot of a child. Can we get out? Will our car be engulfed in flames? Will we die? "I don't know," someone shouted from a stopped car pointing up, "if it's open now it might be closing soon!" I stepped on the gas and drove down the hill, the only car on a lone mission.

Driving into flames causes an instinctive push-pull. The body says no, the mind says yes, then the body says yes and the mind says no, then all systems are overwhelmed by indecision and a robotic human energy takes over. At a certain point there is no direction but forward. As the saying goes, the only way out is through.

This moment plays back slow-motion in my memory. The fire was a delicate, bright filigree on the edge of the pavement like the rim of the setting sun just before it dips below the horizon. Above that, the flames rose into a hinging jawbone madly chewing up the hillside. I drove through in regret and determination, weeping all the way down.

Adela was not a car sleeper but knew to close her eyes when I ran out of stories to explain this away. With the trees on fire, there was nothing more to say about this place I wanted us both to love.

Down the hill, firefighters were entirely too busy to worry about my car sneaking through, though I vaguely recall arms waving. They were protecting the community college at the base of the hillside in a grassy valley. On the outskirts of the fire, the grass perked up and the oaks stood ready. I have since learned that fire pushes forward with its own wind, warning everything in its path. It was June in Northern California, after all, peak golden hill season with fuels on every surface.

I tapped my fingers on the steering wheel and counted in my head, a life-long habit of metronomic soothing. Beat for every street sign we passed. Beat for every intersection. Beat for each house. Beat beat beat, tap tap tap as the white dashes sped past. Adela slept; her eyelids shut tight as if pulled from the inside.

And then…the smoke was behind us, still visible roaring up the mountain, blowing away from us. I made a call. I was heading toward my parents' house in Chico where they'd moved from the Bay Area in 2007. When I arrived, no one seemed to understand what we'd just been through and I was probably too shocked to explain. Years later, as fire became more frequent and severe, the experience would sink into my gut like an immovable rock, but that afternoon it was nothing more than a shocking way to spend the day. To shift gears for Adela, we headed to the farmer's market.

The black smoke plume was visible from downtown Chico that evening where we walked past vendors and food stands, a strange sunny oasis outside the fiery shade. In all, 254 residential,

commercial, and other structures were destroyed, 10 firefighters and civilians were injured. My brand-new town was burning but not as badly as it would 10 years later. Not nearly as badly as it would, the Humboldt Fire scorching a powerful path for its successor.

Thankfully, toddlers have a way of lightening the mood. When Adela said “ash” it sounded like “ass” so imagine hearing these phrases shouted at home, in the car, at preschool, at my office, in the grocery store, in front of everyone for the duration of the fire:

“It smells like ash!”
“There’s ash everywhere!”
“I have ash in my hair!”

In all fires since, when we talk about “ash” at home it becomes “ass” because it’s the only way to cope. Fire season smells like ass.

MIDNIGHT MORNING SUN

On November 8, 2018, I was four days into a new job in Sacramento 70 miles from home. I’d left a job I loved after 7 years in Chico and was commuting an hour and a half each way. My husband texted that there was a fire, a smoke cloud was growing in the east toward Paradise and taking over the sky. Adela had texted him while walking to junior high that morning wondering if everything was ok. Her school sat adjacent to the grasslands that back up to the hills where the smoke was black not brown, the plume wide not thin. He assured her the fire would be out soon, nothing to worry about, but by the time he texted me he wasn’t so sure. Just down the street from Adela’s junior high, Heidi was in 1st grade.

My mom started texting photos of charred debris she held in her hand like a crow’s wing. She and my stepdad now lived in Butte Creek Canyon, a steeply-walled valley below Paradise on a stretch of peninsula flanked by the creek. In her texts she marveled at these handfuls of ashen rain, giant flakes of life in Paradise falling from the sky, a horrifying alert to anyone upwind.

“MOM,” I texted back, “GET OUT.” By now I could hardly concentrate on work. She would eventually evacuate by order of the Sheriff along a bike path that connected her canyon to the main road heading into Chico from Paradise, the road that by this point was operating in contraflow for the mass evacuation of the ridge.

I was hesitant to leave early from work because I was so new to the company. Hell had arrived in the North State but I was on the clock and no one else’s phone was blowing up like mine. When I finally left the office, it was with direct instructions to the family: don’t wait for me if you need to get out. JUST GO.

The most direct routes heading north from Sacramento were closed. Highway 99 through Chico and Highway 70 through Oroville were being used for fire management. I cut west to I-5 and kept north, wondering if I would eventually be able to head east toward the hills, toward the fire. Seeing no road closures I chose the backroads into Chico where, sure enough, thousands of headlights raced past me on the two-lane road escaping dodge. Once again, I was driving against traffic toward fire.

Dozens of miles out I could see the blaze and my texts turned into panicked calls. “Honey!” I shouted, “it looks like the fire is in Chico! Why are you still at home?! Take the kids and get out!” Our home is on the southeast side of Chico where the fire would eventually come within a mile. It was a call I’d make several more times before arriving home. Adela started calling me from her phone about evacuation packing because she’d been through this before. At first, I told her to pack nothing for me then at her insistence I listed off quick things she could grab so we could turn around and get out as soon as I got home: my robe, my earplugs, my shoes, my running shorts. I was preparing for sleep and exercise; I could think of nothing else.

When I arrived home Adela was ready with her photo albums and sentimental treasures packed neatly in plastic bins. When she moved out for college several years later her treasures were still packed from our Camp Fire evacuation. Heidi’s “friends” overflowed from several expandable duffle bags and she was ready to go. We did several checks for Big Kitty to make sure she didn’t get left behind like Naked Baby, because there is no replacing the 35-year-old stuffed animal Heidi inherited from Rodney’s mom.

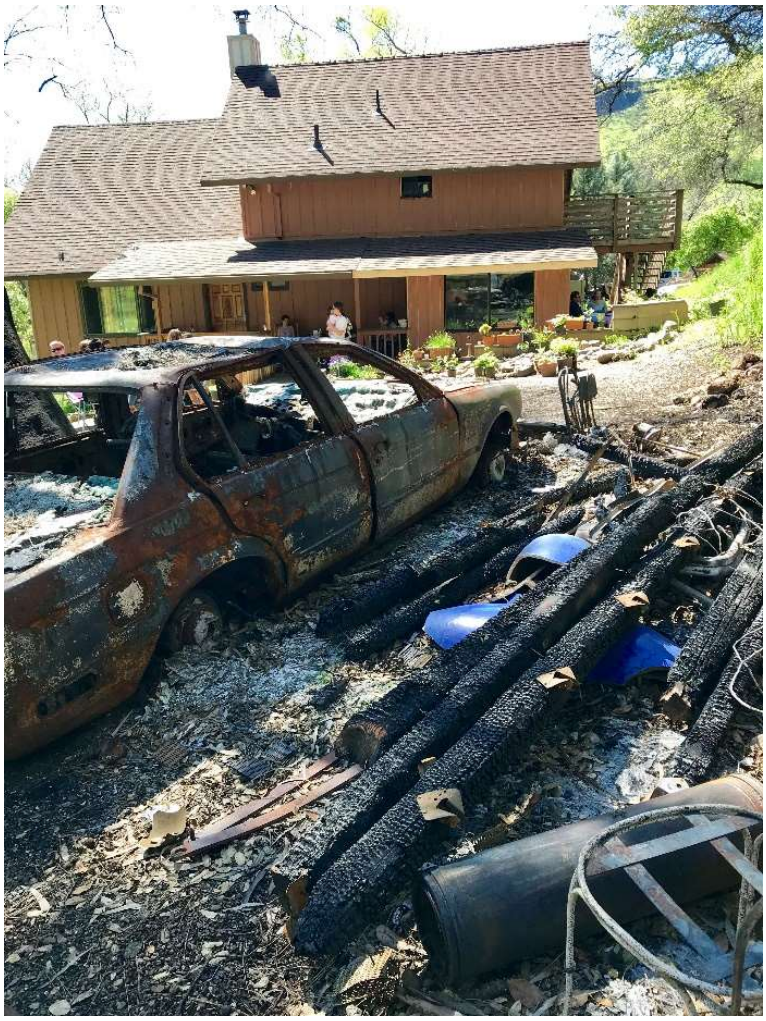
In a decision he’d later regret, my husband hung back. We made a rushed and shouty plan that if the fire got too close, he’d leave. I begged him not to hose the roof, not to sprinkler the lawn, not to try to fight the fire. You don’t have the skills, I pleaded, don’t risk it.

We waved a long time before the girls and I entered the long line of traffic bumper-to-bumpering back to I-5 on the road I’d just come in on. All I remember from snaking through the orchards was not knowing if I’d turn north or south at the interstate. I decided to go the way traffic was lightest to get as far away from the fire as fast as I could. Eventually we made it to my sister’s house in Sacramento where my kids and parents would stay on and off for the next several weeks. We looked like ghosts after the apocalypse in photos from that night, the girls spooning on the couch, holding each other in sleep.

It would be weeks before we knew that my parents’ house survived but their land and outbuildings did not, and months before we knew the extent of the destruction despite the fact that most of it occurred within the first few hours. The fire moved at a speed of 80 football fields per minute from Pulga toward Paradise, pushed by unyielding winds across the treetops, shooting fiery grenades across town.

PG&E had seen danger in the forecast and had scheduled a power outage that day but called it off in the early morning before ignition. It is beyond me to consider what would have happened to the people on the ridge if the fire had started any earlier.

Wildfire can smolder inside of tree trunks for weeks, fueled by what it finds underground. Daily containment percentages are wicked reminders of how long fire can linger. The fatality count climbed as folks moved from the missing column to the deceased column or, halleluiah, to the found alive column. Pets were transported to shelters, many of them seriously burned, then to massive facilities where some lived out their final days unclaimed. Large barn animals and wildlife found dead were transported to the landfill where, as I later learned as part of my disaster recovery duties, a permit had been obtained to receive large animal carcasses.



Oh, the destruction, oh the devastation. It still plays in my mind like a melancholy song. There would be a criminal trial, 84 counts of involuntary manslaughter, heaps and gobs of promised money, complaints filed with the CPUC, lawsuits threatened against the most victimized, and deep mental, emotional, and physical scarring and displacement that lasts to this day.

On our street in Chico after the fire, a neighbor paved her front lawn where an RV parked for several years with patio furniture just outside the swinging side door. During this past Christmas season a homemade sign illuminated by walkway lights said, “Remembering our home in Paradise,” on a front lawn around the corner. Our next-door neighbors lost their home in Paradise as did the woman four doors down.

In all, 85 civilians died in the Camp Fire, most of them in Paradise. The fire destroyed 13,696 single-family homes, 276 multi-family structures, and damaged another 589 structures. It would

be these numbers, compounded by subsequent fires, including the state's most destructive fire in 2020 in Butte County, that would consume my professional life until now.

Housing is the focal point of all efforts, all energy in recovery. For populated areas, recovery must begin with housing even if the houses do not come first. Without housing there is no economic development, no provision of services, no community life, no intangible sense of place, no return to home.

Before housing, though…cows.

MOUNTAIN HERD

North Complex Fire, August 17 – December 3, 2020

Dave Daley is a 6th generation cattle rancher in Butte County. Before the heat of summer, he drives his herd east into the mountains where the grass is still green. His cattle roam the wooded mountains until they are driven back down into the valley to graze on grasslands in the winter.

The North Complex Fire broke out in late summer of 2020 when COVID was in full swing and the community was still reeling from the Camp Fire. I was Disaster Recovery Director for the Town of Paradise at the time and my duties ranged from hazard tree removal to wrapping up the After Action Report. One particular morning we awoke to a blackened sky that didn't lighten as the sun rose; rather, the blackness turned to orange, a telltale sign of thick ash in the air from a nearby fire. The trauma was palpable. I called my parents from my drive into Paradise that morning and said, "don't wait this time, get out."

When I arrived at work, I was asked to secure the building with Kate, a co-worker, so we circled the perimeter of Town Hall to see what flammable materials we could pull away from the structure to avoid ignition. I felt ridiculous stepping over knee-high weeds in my shiny work flats, sweater, and pants while listening to Kate's instructions. I wasn't dressed for fire and neither was the building.

Back inside we gathered in the Town Manager's office where the former Fire Chief, Jim, who still worked as a volunteer emergency coordinator papered the table with maps. He called out the names of ridges and peaks I'd never heard of, tracing his finger along the topographic lines to show where the fire was heading. He explained how the fire would accelerate in the steeper slopes of the canyon and where the wind might divert it from the ridge tops. From the windows we could see the glow of the flames a few ridges over, fire's false sunrise.

PG&E implemented a planned PSPS event in the Town that morning – a Power Safety Shutoff of their utility lines to avoid the danger of ignition caused by high winds – which meant that

except for the buildings and street signals operating on generators, the town was dark. I went in and out of Town Hall in restless anxiety and watched a persistent line of tail lights head downhill toward Chico, red lights glowing through the ashen dawn fading at the bend. No one was waiting to be told to get out this time, to be caught off guard by fire again.

Steadily the town emptied out: fifth wheels, horse trailers, RVs. The intersections without back-up generators were dark and the public's exit was careful but insistent. We eventually called an Evacuation Warning for the whole town, heeding the signal residents were clearly giving. No one was taking chances because there were no chances left to take, the worst had already happened. I remember standing on the side of Skyway outside of Town Hall under the darkness of mid-morning fire, Camp Fire destruction all around us, watching the cars leave town, my eyelashes filling with ashes from a new fire, feeling like my insides were burning down.

It was during that fire that Dave Daley's cows died while grazing in the mountains. The North Complex Fire started in August and he hadn't yet driven them down for the winter. The cows were familiar with the area and allowed to roam free.

Dave took photos from his rescue mission a few weeks later where he found piles of cows painted thickly with ashes and soot – strong black cows turned gray and thin. On that mission he found a pregnant cow standing in a puddle attempting to sooth her charred legs. Because she was injured beyond saving but her calves were still alive, Dave did what ranchers do and relieved her of her misery. He tried to save the calves but they did not survive the ordeal and he pulled them out dead, one by one.

I heard Dave tell this story a few years after the North Complex Fire. As he described the scene, I felt my brain rewiring to take in more unbearable suffering, images I'd never imagined but could not unsee in my mind's eye. This is the reality of living in the aftermath of fire, every encounter carries the potential to break your heart.

Dave made a few recoveries on that mission, a handful of rescues, but as any rancher will tell you, cows that have been through fire may never fully recover. The experience is too much for many to survive unscathed and eventually thrive. As I've read about the impact of wildfire on cattle ranches in other parts of the state, I know that many cows who've been through fire are weakened by stress and die prematurely.

Back at Town Hall, standing under the falling ashes that morning, I couldn't have known what was going on in the mountainous flames a few ridges over. The North Complex Fire never reached the town but it took 16 lives, more than 300,000 acres, and well over 1,000 homes in quaint remote communities of Butte County. A retired firefighter who now works for the Butte County Fire Safe Council told me so many animals were lost in that fire that CalFire began keeping count of wildlife fatalities, a practice never done before.

From Town Hall that day I only knew we had an emergency to run, my first real Emergency Operations Center (EOC) experience, one I would repeat my first week on the job at the County where I moved to release myself from the pressure cooker of recovery work. My first day at the County was July 12, 2021.

Dixie Fire, July 13 – October 25, 2021

The Dixie Fire ignited in Butte County and gripped the North State for several months, eventually scarring almost a million acres in several counties, the largest single-ignition fire in state history. During those months the Dixie plume was visible from our front yard, stealing our summer and peace of mind.

My 8-year-old perfected her rain spell during the Dixie, a fire so big it created its own weather. She found the instructions in her fairy book embossed in gold, put three blades of grass in a glass of water, stirred to the left three times, stirred to the right three times, then poured the

grassy water outside on a tree trunk. The spell said this would bring rain and it did a few times. After a while we didn't even need the book to remember the spell. I remember it still.

During the Dixie EOC I served as Liaison. This means I went back and forth between the Incident Command Post (ICP) in Chico where the firefighters and responders were stationed as the Incident Management Team (IMT), and the County EOC in Oroville where County staff were working on mass care and shelter plans, communications, public works response, and other logistics. After each IMT briefing, I brought incident maps and Incident Action Plans to the EOC. As the primary contact for the IMT Liaison, I coordinated their report-outs on our briefings so County staff could hear directly from CalFire who was jointly operating with the United States Forest Service for the Dixie Fire. Though the fire started in Butte County it moved well beyond it, eventually requiring a second Incident Command Post in another county to account for the closed roads in between.

On Saturdays and Sundays, County staff assigned to the Liaison role rotated going to the ICP for briefings. When it was my turn, I took my daughters with me. We brought fire maps home that my youngest used for firefighting make-believe, moving her plastic dinosaurs around the mountains, surrounding the fire perimeter, putting out the fire by splashing in the lakes and streams. She made sure firefighting aircraft was parked on the scene at all times.

My job at the County is to implement the Board-approved Regional Economic Development Strategy and to supervise the administration of disaster recovery funding from federal disaster declarations, as well as housing and public service grants. For many years, the division was responsible for traditional Community Development Block Grants (CDBG) and, most recently, COVID grants. When I arrived at the County our grant-funded programs ranged from long-term loans for housing rehabilitation, food bank distribution, housing navigation services, mobile hygiene services, and business assistance grants. With American Rescue Plan Act (ARPA) funds allocated to Butte County, we oversaw Board-selected projects like recreational trail construction, broadband planning, wayfinding signage, for-profit business grants, and special event grants to offset losses due to event cancellations caused by the pandemic. In the simplest terms, grant-related work for economic and community development requires securing federal and State funds to subcontract out to community organizations to deliver Board-directed services to the public.

Toward the end of 2022 my boss announced a transition at work. I'd be assuming supervision of our long-term disaster recovery grants as I did at the Town of Paradise. These grants are considered last-in unmet need funding meant to restore public infrastructure, multi-family housing, facilities and County services, as well as mitigation planning following disaster. Due to the severity of the Camp Fire, these recovery grants are allocated at over $180M to the County jurisdiction over a span of about a dozen years. Projects funded by these grants are prioritized by the Board based upon how the funds can be used, when the County must use them, and where the community needs them most.

THE TREES

When I first started disaster recovery work, I noticed something surprising: early recovery work feels hurtful to the community rather than helpful, or at least hurtful while it's helping. Recovery, as I came to find out, is the necessary wounding for healing to take place. It is the final hand of destruction before rebuilding can begin.

I oversaw the hazardous tree removal program in the Town of Paradise after the Camp Fire. For me, the title Disaster Recovery Director initially conjured up words like restoring, rebuilding, re-establishing, re-creating, and re-invigorating to describe the work. But that was not the case. Disaster recovery is removing everything fire has left behind, then taking what disintegrates during the aftermath…if resources are available.

Due to soil contamination from household hazardous materials melting into the ground during the Camp Fire, several layers of earth were removed along with debris in order to remediate residential and commercial lots. Debris removal crews left gaping holes where homes had been and chain link fencing around what wasn't eligible for removal like swimming pools. Homes

can’t be built in holes so lots have to be filled and leveled before reconstruction can begin. To this day, some Camp Fire impacted property owners are on a waiting list for PG&E to deliver free or reduced-cost soil to level their lots.

Soil that’s removed after fire can sometimes be cleaned and re-used, but that’s not an easy nor quick process. Remnants must be taken out, the soil finely combed then cleaned and sanitized to the point of hazard elimination. I picture this process involving a giant sifter like the one my grandma used to add flour to her pie dough, a puff of flour with each shake.

Removing trees through a government-funded process is also not as simple as it sounds. Of all the recovery programs I’ve worked on, this was the most complex by far. In the Camp Fire program, dead and dying trees had to be found eligible to be removed.

Eligibility involved a somewhat complicated process of determining the tree’s diameter and height in relation to the distance to a publicly-owned or qualified private roadway should it fall. Under this program, removal wasn’t about cutting down trees that threatened people or property, it was about removing trees of a certain size that threatened the public right of way. And removal wasn’t complete – stumps were left to a certain height leaving an expensive job

for property owners who wanted to build over or plant something in its place. The tree was no longer in danger of falling but it was still a costly obstruction.

The winter of 2020-2021 following the North Complex Fire levied intense storms with heavy rains, wind, and snow in the Camp Fire burn scar. Rain weakens the soil where roots barely tether a dead tree to the ground. Snow piles on fire-damaged limbs and causes them to break. I'll never forget the panicked calls from residents to speed up tree removal. "My neighbor's dead tree is about to fall on my 9-year-old's newly rebuilt bedroom!" shouted one mother. In that case, I remember, we were able to get a tree crew to respond but the neighbor could not be reached for permission to enter the property. I still remember the scene: several people pacing through the checkerboard lots on their phones, no one speaking to each other, the tension thick.

Day after day we listened to the intense fear, deep frustration, trauma, and rage of fire survivors relying on the State's tree removal program and communicated it over to the agencies in charge. Damaged and destroyed trees are dangerous on their own, add an ounce of wind to a community under reconstruction and they are deadly. It grew nearly impossible for me to ethically repeat that an ineligible danger tree could not be removed no matter how threatening it was to a child, to a family, to a home. "But that makes no sense!" parents would scream at me and they'd be right. Because of federal rules and regulations, the reality of recovery often makes no rational sense and my role as messenger felt paralyzing at times.

On the flip side, even if trees are deadly, they have sentimental value. I remember a conference attendee telling me last year how shocked she was that after a fire killed a local teenager the community refused to remove a stand of trees for a fuels reduction project. She was aghast, certain that the tragic death would remove all social barriers to reducing fire risk. I told her I understood her assumption, it is very hard to grasp that level of attachment in the face of tragedy but, counterintuitively, it is the tragedy that increases the attachment. When people have lost everything, they might hang on to anything, especially reminders of their former lives even if they are risky.

One morning, down a long street running perpendicular to the Feather River Canyon where the fire entered Paradise, I found a completely intact playhouse perched in a partially burned tree. The playhouse had a colorful roof and shutters, and I couldn't tell from the lack of everything around if it had been in the front yard or in the back.

To me, this was the saddest sight, a sign of children's lives before interruption by fire, a house that would never again be played in because the tree had to come down. I hoped whomever owned that lot hadn't found the playhouse in that state, though if they did it was likely with a mix of grief and fear for childhoods that would never be the same.

In my day-to-day life, I have always enjoyed taking longs walks in my neighborhood at night, imagining what everyone is watching and eating as they wind down. I am just as curious about people and their choices when those neighborhoods are gone. In my Camp Fire recovery work in the Town, I could see tragedy in the shreds of lives the fire laid bare for the world to see. As much as I sought to understand what I saw, as I imagine disaster tourists do, I also felt deeply protective of the community and its wounds, and still do. I share them here only because the aftermath of wildfire clutches our private and professional lives long after media reporting on the tragedy ends.

In Butte Creek Canyon, my mom held on to the partially-burned oak tree that held the rope swing her granddaughters played on prior to the Camp Fire. I took a photo of Heidi enjoying the swing for the last time in October of 2018. The first year after the fire a few branches leafed out and others didn't. The next year fewer leaves grew until one by one the heavy limbs dropped onto their driveway, barely missing their house, leaving a long lonely trunk.

CLIPBOARD FATIGUE

Disaster recovery involves dozens of strangers conducting hundreds of tasks on private property: posting address markers on destroyed lots that otherwise couldn't be identified, household hazardous waste assessments, watershed stabilization, damage validation and documentation, site inspections, compliance checks for government contractors. After fire, owners are often not present during these visits nor in the area due to displacement. For some this feels like a violation and they coordinate each visit with each agency even if they have to

travel. For others this work is a welcome necessity bringing them one step closer to reconstruction and resumption of their lives. For many, recovery is nearly impossible to think about for the pain it brings up about the disaster. After the Camp Fire, it was not uncommon to reach a fire survivor a year or two into recovery to hear they hadn't opened their mail since the fire.

Debris and tree removal in the Town of Paradise following the Camp Fire required two processes spaced years apart with two sets of permissions, deadlines, and extensions. State agencies learned from this experience that it's more efficient and less costly to remove debris and trees at the same time as many wildfire recovery programs are now consolidated, reducing multi-year processes of site destruction into a single production.

During tree removal, I counted a minimum of seven agencies inspecting each lot over several weeks in various company vests and safety gear, some wearing name tags, most holding clipboards or tablets while walking the site looking for waterways, cultural artifacts, biological conditions, and significant archeological remnants. Crews measured the tree diameter first then the distance of the tree from the road, assessed the property in which the majority of the trunk grew (not as easy as it sounds), and evaluated the distance to a standing structure or construction site to determine if the tree could be limbed before felling. Crews included assessment, marking, traffic control, felling, large material trucks, slash trucks, clean-up, and inspectors confirming each lot for completion and compliance.

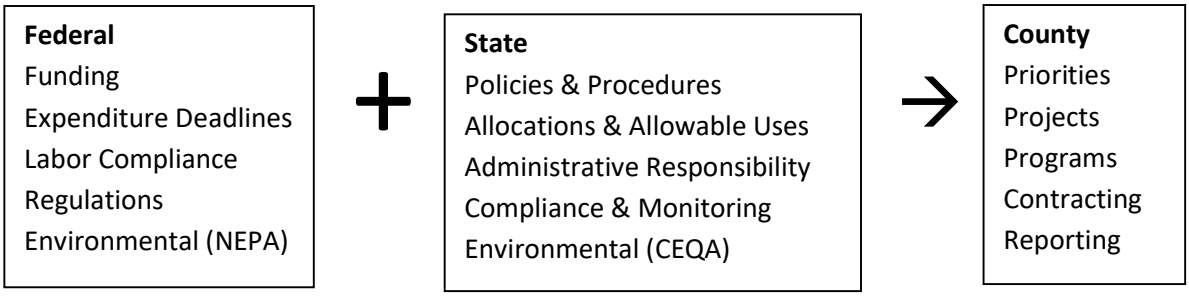
At times I felt the work was having a net positive effect. I'd refer to the Town as the largest construction site in the world and marvel at the workers, the materials, the effort, the time, the money, the creativity, the tenacity, all the things it takes to build a house a thousand times. I'd see contractors on new roofs, linemen and women climbing utility poles, and underground services boring underground trenches. I'd see and feel and hear the sound of progress all around me since construction was considered essential work during the pandemic. On rainy days though, the construction workforce would disappear, the roads would clear, traffic control would shut down if they could, and progress would pause. As much as I could hardly tolerate the sadness of the best times, those gray, rainy days were the hardest.

A while into recovery it's fair to say fire survivors grow tired of clipboards on their lots, less trusting of government programs if they ever trusted them at all, and fatigued by timeline promises and delays. At a recent meeting in Magalia, community members listened to PG&E present their "Butte Rebuild" undergrounding workplan over the next two years which is a result of their responsibility for the Camp Fire. They shared color-coded maps of the Upper Ridge with anticipated start dates, the order in which they expect work to occur, and the areas not being served by the program – essentially the intact neighborhoods. Five years into

recovery, residents fairly wondered out loud if they could trust what they were hearing even though the information was delivered with earnest intent.

LONG RECOVERY

At the County, long-term recovery staff share office space with Emergency Management staff. Our day-to-day is shaped by preparation, response, recovery, repeat. My mind and emotions are fastened to the fragility and complexity of our circumstances and risk, nuances I explain to consultants over and over again.



People living and working just a few miles outside of the burn scar may have no concept of what's going on within it. It's out of sight out of mind, there but not dominating their thoughts, or just too heartbreaking to comprehend day in and day out. When I tell people, even my parents who were personally impacted by the Camp Fire, that we're still working on recovery I have to explain why it takes so darn long and no one wants to hear the answer.

For federally declared disasters (which meet a certain cost threshold by themselves or bundled with other disasters), federal grants are the largest single source of funding available for recovery. Funding from the Federal Emergency Management Agency (FEMA) for Public Assistance (PA) and Individual Assistance (IA) come first. PA funding repairs public sector damages, IA goes directly to individuals to meet immediate needs. Insurance is meant to be the primary funding source for individual recovery, but as we know in Butte County, the majority of fire survivors may be renters, underinsured homeowners, or uninsured.

For financial gaps that remain, Community Development Block Grant Disaster Recovery funding (CDBG-DR) is meant to address unmet recovery needs. By design, these funds are not available for several years following disaster. These grants are appropriated by Congress, allocated by the State, then prepared for application through a series of policy decisions and public comment periods. There is a distinct chain of custody for the funds that takes years to establish before the grants ever touch ground, if they do at all.

Local government identifies needs, scopes projects for eligibility, prioritizes eligible projects, applies for the funds, completes due diligence, avoids choice limiting actions, receives awards,

executes standard agreements, completes environmental, receives notices to proceed and authority to use grant funds, begins monthly reporting on activities and expenditures, solicits for contractors, executes contracts, begins construction, completes the projects, closes out the grants, and prepares for federal and State monitoring which can last several decades. This process is completed for each grant, with different project milestones, all within an expenditure timeline set by the federal government. Currently, the State is requesting an expenditure deadline extension on behalf of subrecipients for Camp Fire funds which are set to expire well before most projects will reach construction.

For some jurisdiction impacted by disaster, the complexity and prohibitively limited ways the funds can be used are barriers to recovery or solve problems the disaster did not cause. If housing is the goal, and housing funds are impossible to use for reconstruction by survivors (who may be ineligible) and/or in the burn scar (which may no longer have the infrastructure needed to support community) then recovery does not occur. If those funds are then shifted outside of the burn scar to pay for infill construction in urban areas where the fire did not occur, then they may not house survivors. I call this displacement housing – which is not what many survivors want. Five years after the Camp Fire, we have nearly 3,000 multi-family housing units under construction in urban centers, while remote rural communities that lost affordable single-family homes flounder in disaster-caused homelessness.

It's important to distinguish that fires that do not meet the threshold for federal declaration have fewer funding options. Local governments and other eligible agencies and entities can apply for Fire Management Assistance Grants (FMAG) for eligible expenses related to response. Local governments can also issue local emergency proclamations, and health emergency proclamations, to signal inadequate resources for recovery. In California, local governments can request funding from the California Disaster Assistance Act (CDAA) and a State-led Private Property Debris Removal Program (PPDR) with an accompanying urgency ordinance to establish health and safety requirements on burned land. Navigating the disaster funding world is challenging even for counties with recurring disaster experience; and it is exponentially more daunting for survivors faced with piecing together their recovery for the first time.

To this day, fire survivors bring in their worn, weathered file folders to our office to hand over their insurance proceeds for debris removal costs. This is a head-scratching calculation where homeowners enrolled in a government debris removal program are required to reimburse the State with any insurance proceeds they receive for the cost of removing eligible debris minus what they used from those proceeds to remove debris that were ineligible. During COVID, I watched them hunch toward our plate glass window trying to be heard through their mask. We found a chair and tucked it under the window so they'd have a place to sit for these stressful

transactions. Recently, a survivor helped herself to a piece of candy saying the insurance repayment process is nearly as stressful as the fire itself.

Losing everything is surely the hardest way to be impacted by fire but it's certainly not the only way. Our community has fire imagery burned into its collective brain. Satellite imagery from the Camp Fire is used liberally in presentations we see well outside of our area, often followed by the question, "can anyone name this fire?" At one conference an attendee raised his hand and said, "yeah, that's my house under there." I've become a lot more sensitive to the use of disaster photos knowing how they make survivors feel.

During long term recovery, when we talk about projects like evacuation planning, the public takes notice. Instead of a theoretical exercise based on what-ifs, these conversations trigger actual memories of power poles falling into the roadway blocking the only way out.

It doesn't surprise me that within local government, as departments work with outside consultants on projects like these during recovery, clashes occur given the many different perspectives and experiences in the room. For consultants who have no experience with evacuation in the real world, catastrophic modeling is a computer-drive progression of color-coding on a map. Mildly, it's like watching watercolor paint spread across the page. For first responders, it conjures visceral memories of pointing their neighbors toward the least

dangerous route during absolute chaos while risking their own lives. It is holding the responsibility for life or death which heightens the stakes of the project. On one hand you have a video game, on the other you have real life.

I haven't sifted through ashes to find my grandmother's teacup like my mom did, then wash it and explain to everyone who admires the turquois stain that it's been "fired" for real. But I do spend large chunks of every year expecting my home to burn down. I fear it's not if but when for many people living in Butte County and similar fire-prone areas. We spent the whole summer of 2021 watching the Dixie Fire burn neighboring communities from our front yard. Even though all evacuation warnings in Butte County were called off on August 30th, we went from weeks to months in the presence of the Dixie Fire. To this day, the only time I breathe easily is when it's raining.

FIRE SPROUTS

When the Camp Fire burned through Butte Creek Canyon that November 8th it singed the succulents on my parents' front porch, leaving their delicate leaves tinged with brown. Inexplicably, the fire left the house intact with its rickety wooden staircase and decking untouched.

The ground around their standing home was the deep black color of coal. Trees stood with their blackened trunks and vibrant leaves along the soft gray gravel lane cutting through the adjacent meadow. Weeks after the fire tiny shoots of green grass pushed up through the blackened earth and we saw hope again. I would kneel with my face nearly to the ground, breathing in the scorched soil scent of wildfire, to take in the miracle of life.

Fire awakens dormant seeds. Property owners in Paradise found things growing on their properties post-fire they'd never seen before – signs of weeds, bushes, and trees pulled out decades maybe centuries earlier. Healthy fire reinvigorates the land and has been used for habitat restoration for generations, and culturally for forest management by native tribes for centuries. The Camp Fire appears to have destroyed more than it awakened, but it's possible the land is simply holding its secrets for the next fire.

My parents lost their oaks, pines, and bamboo, their garage, their storage shed, and their carport. The fire burned the classic car my uncle lovingly restored before he passed away and left it to my stepdad. Years earlier, my husband and I had "ridden off into the sunset" in that car on our wedding day, sitting in the trundle seat while my brother and sister drove us through the park.

My parents' insurance policy required that they itemize every single thing they lost and estimate its replacement value. This meant each spoon, plate, book, ornament, knick-knack, things they couldn't even remember they had, stored away in boxes for the grandkids.

My mom cried for the fact that her house with her day-to-day stuff remained intact, while her family treasures kept by both of her parents until they died burned in their storage shed. She is a keeper of things and she is meticulous in her keeping. The possessions she lost represented the love of her parents, her memories of childhood, her family heritage, and her emotional wholeness. As I've heard from many fire survivors, losing the only tangible items left by loved ones is like losing them all over again.

While my parents prepared their insurance claim, I listened to everything they lost, read through the list, edited, advised, and cried only when I learned the Christmas stocking Jamie's mom had made for me when I was born had burned. Otherwise, I was grateful they didn't lose

more, though their property continued to change as debris was removed, soil was excavated, grounds were remediated, and one by one their beautiful trees fell from stress and slow death.

In what's left and rebuilt in their neighborhood of large lots, small ranchettes, and creekside cottages, people see a tree down and roll up in their tractor. It's their way of life. Whereas my parents are relatively new to rural living having bought their house in Butte Creek Canyon just one year before the Camp Fire, their neighbors have experience driving heavy equipment and wielding the occasional chainsaw.

RESILIENCE SPECTRUM

I often think about what resilience means and if it is achievable and lasting. I think about my own resilience, my community's resilience, the planet's resilience. My youngest daughter loves to talk about how the earth will overtake society within 50 years if cities are abandoned by humans. She loved the pictures of coyotes roaming the streets of San Francisco during COVID.

Resilience is the period everyone puts on the end of each sentence that starts with disaster. Disaster, response, recovery, resilience. It flows naturally and linearly making people feel better about disaster if resilience comes next.

Community resilience seems at least partially attainable but there are limitations due to cost, scale, and motivation to name a few variables. We're learning how to Teflon our world: gravel our yards, remove the trees, harden the homes, repeat the recurring cycle of enforcing the weed ordinance because weeds are not interested in policing themselves. We can do all the things humans know protect the built environment from mass destruction and lower risk so disaster is less impactful, but is that feasible?

As we know here, the universal 'we' leaves out a lot of households like those on large lots without funds for mitigation, and those who don't want to let go of their trees and vegetation. I recently heard the new Fire Administrator for Napa County saying much of his work is helping people grieve the nature they moved there to enjoy, so they can remove it to reduce the risk they'll lose it and more to fire.

With government funding and willing property owners, communities can certainly accomplish a percentage of these recommendations in fire-prone areas, but without 100% participation does the risk decrease enough to stop or slow fire adequately to save everyone? Feasibility which depends upon willingness, resources, and maintenance lies somewhere in the middle of the resilience spectrum.

Paradise's retired Fire Chief, Jim, once told me we plan for the worst we can handle not the worst that can happen. I've never forgotten those words and I've come to experience, over and

over again, that the worst that can happen will continue to surprise us. We plan for all the ways we can respond as humans, not for the unimaginable we don't have the capacity and resources to mitigate beforehand. It's been said that catastrophic fires like the Camp Fire make news because the destruction shows the limitations of human response. We talk about fire tornadoes because they wouldn't exist if we could somehow gain control.

Evacuation zone mapping in the Town of Paradise pre-Camp Fire was meant to create a grid for gradual, orderly evacuation, not to guide residents through an unforeseen mass evacuation of the entire ridge. That doesn't mean the effort was wasted, it just means our planning has to expand to include the worst that can happen. Yes, we need to go there.

As Jim explained to me, evacuation mapping is useful for 99% of fires that occur, with the Camp Fire being that 1% exception. When fire comes from one direction it is conceivable evacuation zones can be called in sequential order; when fire shoots itself across town and starts burning inward from all sides gridlocking traffic, people end up lying in parking lots watching fire blast over their heads at 100 miles per hour.

PETRI DISH

Working adjacent to Emergency Management I see how planning and mitigation must overtake daily operations in order to reduce risk. In rural local governments where capacity is an issue and several critical positions are held by one person, the inverse is often true. Intact communities may be unwilling or unable to stop the flow of the day-to-day with enough time to prepare for the worst they can handle adequately, let alone the worst that can happen.

We're in a bit of a petri dish here in Butte County. Researchers regularly call to see how and what we're doing and if it's working. It's encouraging to hear the academic focus and I give interviews when they're in the County's best interest, but the lessons get diluted by the competition of other social pressures and priorities. Wildfire is important to us, but that's not the case for everyone.

One of the traditions I started with Adela when we lived in Paradise was sitting on the front porch and blowing bubbles when it rained. It was exciting to see the bubbles float out and get popped one by one by the raindrops. Occasionally a bubble would make it all the way across the lawn which was thrilling to my toddler. That's how being studied feels. Lots of bubbles navigating lots of raindrops, floating by and popping before too long, once in a while getting through to the other side before…pop.

Some well-meaning volunteers feeling heartbroken and compelled to help reached out to me when I was at the Town. Instead of offering assistance, however, they asked me to stop what I was doing and help them find a way to give back. In my experience, this is a well-intended ask

but not an efficient use of a recovery professional's time and emotional capacity. In a short period, I went from feeling grateful for these calls to having no space in my heart or my brain to assist people trying to assist. Thankfully, we had a number of hard-working nonprofits in the community coordinating volunteer work, and I was happy to refer them over.

In general, volunteers do incredible work in disaster recovery. They raise funds, navigate the local permitting process, and build homes with and for survivors. There is some volunteer-driven recovery work occurring here in Butte County but not to the scale it occurs in urban areas or after hurricanes and floods.

One of my fellowship interviews was with the CEO of the California Building Industry Association. His answer to rapid wildfire recovery is streamlining master planned developments. This makes perfect sense in an urban setting where small, adjacent lots can be purchased and developed at scale using one or two master planned designs. I understand a County in Southern California approved building plans on dozens of contiguous lots under one permit, cutting down on paperwork and time for developers.

In my observation, and what I try to share with every researcher who calls, is recovery in an urban fire footprint is very different from recovery in a rural fire footprint. For the most part, with connections to municipal services like water and sewer, recovery in an urban fire footprint can occur in place. In a rural fire footprint where lot sizes might be an acre or more and dependent upon septic and wells that are likely also damaged or destroyed, reconstruction solutions are unique and unrepeatable. In some cases, the rebuild happens well outside of the burn scar in urban spheres where development is more feasible, changing the ratio of urban homes to rural homes, weighting against the latter.

GOING HOME

A few months ago, I was having my blood drawn in a lab when a young boy started crying a few stalls over. He sat at the counter in his stroller while his dad used his arms to brace his body for the phlebotomist. The boy was terrified of needles or the sight of blood, maybe both, but he was too young to explain. His pregnant mom had walked behind me on her way to the lobby, likely hoping her absence would speed up the experience.

The boy howled. He cried and begged and pleaded at the top of his lungs. As he resisted, I heard the tension in his dad's voice, soothing and apologetic but stern. "I'm sorry, buddy, but we need to do this." A few minutes into the session the boy fell into a pattern of wailing, "I want to go home! I want to go home! I want to go home! I want to go home!" in a steady unbroken rhythm. My nerves were fully activated by this time, and my body tensed from the trouble my phlebotomist was having finding my vein.

Finally, blood drawn or not, the dad wheeled the boy's stroller behind my chair toward the exit. As they went, I heard, "I want to go home!" at top volume. My eyes filled with tears for the young boy's distress and the worry his parents must have felt if this was diagnostic. He was saying, "I'm scared and I want to go to my safest place in the whole world." He wasn't crying for his toys or his snacks, the simple comforts and conveniences parents usually pack in strollers to sooth toddlers during situations like these. His cries about home were coming from the very center of his fear. I realized that as young as he was, his definition of home was the same as mine, as my parents', as anyone's I imagine, and I thought about all the ways in which I've heard this cry since the Camp Fire.

Now I hear, "I want to go home," differently, and I hear it everywhere. Sometimes with a bit of urgency, sometimes as an order, but a lot of the time as a calm expression of retreat. It's the sound of a father calling for his kids at the park as the sun is going down. It's the excitement of my co-worker as a long weekend approaches. It's the answer to many polite social exchanges. But whereas a young child can shout it freely at the top of his lungs, adults – fire survivors who have lost their homes – express it in a hundred different ways.

Home is the physical space we reference the most, the most common place we map to and from. When we lose a home to fire or flood or another calamity, our roof and our walls are gone but so is our safety. For many fire survivors, safety isn't restored until home is restored and that's not always accomplished with a house. My dear friend who lost her home in Paradise has moved three times in the past five years, each time into enviable, beautiful houses. Just last year she wept in my backyard out of homesickness for the pines and her sense of community. This was her saying to me, "I want to go home." She lost her weekend retreat in the Dixie Fire, too, so any sense of physical respite from her unwelcome urban environment is gone.

I have learned home is not a one-to-one replacement after disaster. Even those who did not lose their houses in the fire lost the idea of "home," and the safety that comes from taking that for granted. Even for me, living miles outside of the Camp Fire epicenter, my faith in home as a permanent place is shattered by what I have seen.

In my parents' case, even though they had a roof over their heads each night, living without their home for a period of time following the Camp Fire quickly turned into a life-threatening hospitalization. For other survivors, it may show up as a prolonged depression, anxiety, PTSD, or other chronic health conditions. We're taking courses on resiliency now and I see how predictably my life has shaped itself around a fire-driven hub of thoughts and feelings. With some training, I no longer see my reactions as unique; I am a posterchild for post-traumatic stress from the way fire has reshaped my existence.

The County's Department of Employment and Social Services hosted a meeting last year with guest speakers who'd experienced homelessness. One speaker said the hardest part of homelessness was not knowing where to take herself during the day. She literally did not know what to do with her physical body. She would keep moving so there was always a destination because there was never a destination. She wished for a home or an office or a park that would allow her a sense of arrival and rest, a single place that was predictable without feeling like she had to move again. As she wept in front of us, I heard what she was saying: I want to go home.

I'd never before considered that a body can be a burden when it has no place to go, or what a crushing responsibility that is. Indeed, we see fire survivors suffering the same physical and mental afflictions as people experiencing homelessness. An inability to be as pure and honest as that little boy obscures what so many people are crying inside after fire.

Oakland Firestorm, October 19-20, 1991

When I was 14 years old a fire came close to my childhood home in the East Bay Area. The Oakland Firestorm made international news because within 1,520 compact urban acres it killed 25 people, injured 150, destroyed 2,843 single-family homes and 437 apartment and condominium units.

I remember my parents watching the news and talking to their friends, trying to get a sense of the magnitude. As a family and as a community we were not attuned to watching the size and color of smoke plumes to know what was burning and where. Black smoke billowing out from all sides means a structure fire is spreading. Thin brown smoke curving up and to the right signals a grass fire moving west. Thunderheads suggest a massive fire on a run in the mountains.

Through the night sky we could see the fire glow in the distance like a large flickering candle. A top concern among media broadcasters was the Claremont Hotel, an historic ivory castle perched on a hillside below the UC Berkeley campus, visible from miles around. The plight of the hotel and the fear the fire would move through Orinda into Moraga kept us all in suspense.

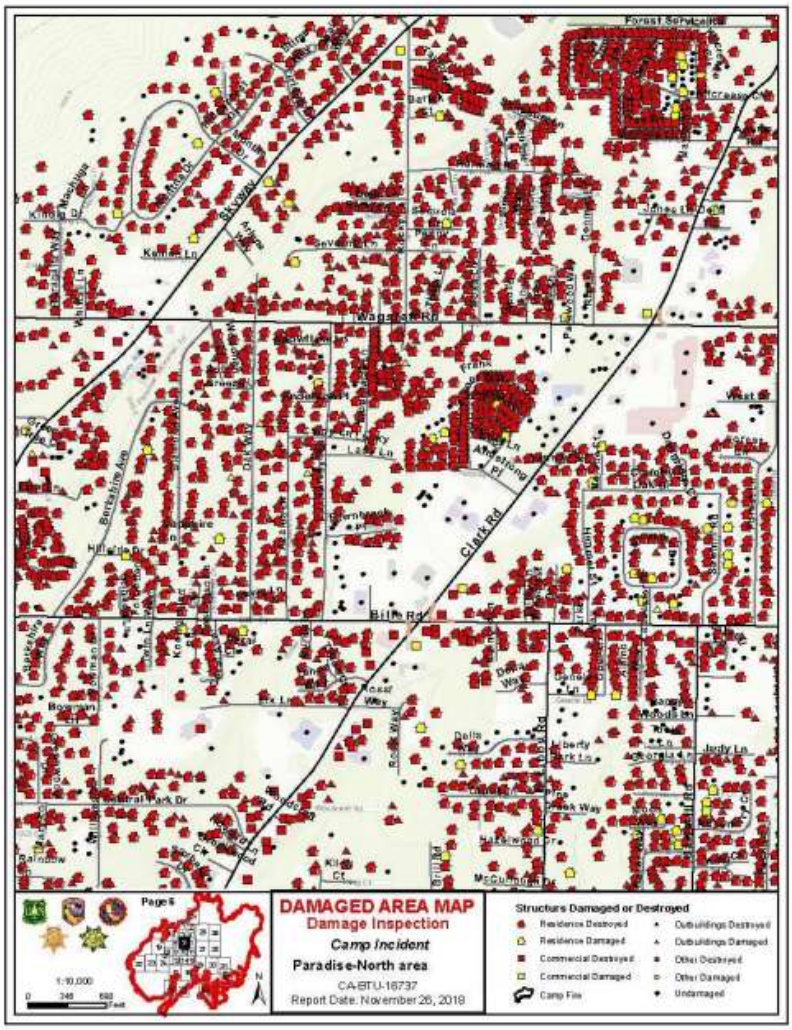
The fire sent shock waves through the community that lasted for years, maybe to this day, much like the 1989 Loma Prieta Earthquake a few years prior. Now I understand as a disaster recovery professional how many lessons were learned from that response and recovery to update broadly-used fire policies and procedures. Back then, however, I don't remember settling into a mindset of fire-adapted living in the Bay Area. The Claremont Hotel survived and on the very next ridge it seemed the community doubled-down on its lush oak forests obscuring the homes that weren't destroyed. I don't remember a single conversation about defensible space though my parents owned nearly an acre of grassy, wooded hillside. It was as if the community took a collective sigh, shook off the fire as a one-and-done, and pulled its dense, forested East Bay lifestyle right over its eyes.

The swath of devastation on the west side of the Caldecott was clearly visible from across the Bay which is the view shed those homes were constructed to enjoy, dwarfed by the great sparkling city beyond and the twinkly lights from homes packed left, right, and center. This was the Bay Area after all, not a community in a rural, remote mountainside tucked away from the public eye. For those living east of the craggy, tree-less Oakland hills, it seemed the trials and tribulations of life in the Bay Area resumed and everyone returned to fearing "The [next] Big One."

My experience with the Oakland Firestorm probably explains why people living just miles from the Camp Fire burn scar may be tuned out, and why those who've never seen the North Complex burn scar can't imagine post-fire living conditions. On a call with our hazard mitigation consultant the other day who, coincidentally, graduated from the same Bay Area high school a few years before I did, remembers the fire differently. Her dad was a dentist in Oakland who produced dental records to identify fire victims. Her friend's sister died in the fire. She remembers the aftermath vividly to this day, her experience much closer and more personal than mine.

It goes to show how differently people can react to the same fire, how proximity to the destruction and death matters even within a few miles, and how age and experience can shape perception and memory. I didn't run for my life from the Oakland Firestorm so though it is seared in my mind, and I watched the reconstruction of those homes and multi-family housing units for the next decade, it didn't change the way I lived from one day to the next. It was not a demarcating trauma from my childhood separating before from after. It was a very tragic incident but for me it wasn't the worst.

BLEEDING HEART



Of all the Camp Fire maps we look at, the sectional damaged and destroyed map in CalFire's Damage Inspection Report is the hardest for me to see. A tiny map of the burn scar in the lower left shows the section of the fire enlarged on each page, and there are many pages. One box at a time, one page at a time, tiny red cubes dot the landscape, each structure accounted for, all the homes destroyed in the fire. Page after page of cul-de-sacs, lanes, roads, avenues, streets of an entire town and surrounding areas lost save a few standing structures. When I first started my job in Paradise, I had a large printed map of the burn scar on my wall with each red cube blending into the next. "The bleeding heart of Paradise," someone said, as if it was an open wound.

I didn't know then what I know now which is having disaster imagery in front of my eyes full-time, and in front of the eyes of everyone who came into my office, was damaging in and of itself. Now I dole out those images infrequently for myself and others. I don't look at the fire maps unless I have to, often to orient a consultant or contractor to the area I'm talking about when I refer to the burn scar. "Burn scar?" one consultant working in rural California said, "I've never heard that term before." I was shocked and angry as I often am when I have to start from scratch. "See, there was this fire…" Even now, the story is impossible to retell without feeling the rush of it on my skin.

When I worked in Paradise, I would drive up the hill from Chico early enough to explore the devastation before clocking in. Now I see that as picking at a scab that would literally never heal from my constant interference. In all truth, I would probably not describe it as picking, I would

say I was excavating the disaster and its aftermath aggressively, as if frantically digging the dirt with my bare hands like dogs do in cartoons.

Figuratively I would dig and dig and dig, searching for meaning, transposing the tall stands of skeletal trees in my mind like the backdrop of my very own stage production. I now see this insatiable desire to comprehend the impossible as toxic and damaging without proper support. I took the devastation in without understanding that with no place to go it would fester.

One day I pulled over to look at rows of multi-colored mailboxes down a shared dirt path leading to nowhere, nine boxes corresponding to zero houses. I wondered who had lived there and where had they gone. I stopped and took pictures of mid-sized maples frozen into giant whisks churning the air, and imagined the moment the tree burned into that shape. Occasionally I'd see daffodils and tulips sprouting along a driveway and wonder if the bulbs had been there before the fire or if they were a beautiful addition left by a heartbroken survivor. I was searching for answers and getting secondary trauma in return.

Looking back, I was a mom and a wife trying to do good things for my community, but in the disaster recovery field I was an investigator, partially motivated by thinking if I understood the disaster, I could understand the recovery. I've always had a deep social curiosity that is not harmful on its surface, but this experience taught me that when it's wholly unchecked it can nearly undo me. Now I protect myself if I can by moderating exposure to tragic images, knowing how susceptible I am to internalizing them.

I got out of my car one morning to study boulders held tightly in an upturned root ball the size of my car. Until then, I hadn't known standing trees were gripping rocks beneath the surface with their roots, holding on to them when they fall. Another tree held a circuitry of white PVC pipe that had once been a sprinkler system. I learned things I never knew, but now can't unknow.

BINARY FIRE

Here and there throughout Paradise in the year 2020 were standing homes, soldiers on guard. Fire is relatively binary, destroying nothing or everything. Even if fire destroys something only partially it is often considered a total loss for the work required to remediate and repair it. From studying wildfire so intently, destruction became my metric and I started to see everything outside of the burn scar as intact. Whereas once a house was just a house, now if it hadn't burned down, it was an intact house. Whereas I once saw a community as just a community, a community that hadn't burned down was an intact community.

Down one long cul-de-sac where there was nothing left but boulders and root balls and trees falling weekly, there was a beautifully intact home with purple maples and gentle blooms sparkling in the morning sun. Seasons don't come to newly destroyed communities like they do to intact communities where there are leaves to change. One block could contain a barren wintery landscape next door to a vivid Fall scene.

A few times I found myself pulling up Google Maps when familiarizing a consultant with the town pre-fire because while some mapping had been updated with new video, some had not. There was one neighborhood along Pentz Road where scanning south on Google Maps you could see the bare brown earth of destruction and scanning north you were transported back to a delightfully landscaped neighborhood with dappled shade and vibrant colors. It's hard to appreciate how colorful neighborhoods are until they're no longer there. Even today, some maps remain a perfectly preserved "before" picture of Paradise. Overall, there's probably little continuity between what's on Google Earth and what's on the ground given how quickly the Town's landscape is changing. Over time, I imagine the two will merge as the community grows back and the fire disappears.

On those morning drives through Paradise, I would set my intention to celebrate the rebuild in an attempt to stabilize my outlook that swung wildly from hope to despair. Construction starts early so nail guns were popping at the crack of dawn, workers were waving each other over, pointing, guiding deliveries of lumber, rubbing their faces, drinking their coffee. I would see life carrying on all around me and try to lock into a positive head space so I could push through recovery bureaucracy and devastating stories at the office.

When I was in my car, I got to see squirrels scurrying around freely and deer roaming unobstructed by fences, signs that wildlife was returning. One day I saw a handmade sign taped to a street pole looking for a lost turtle. Surely a nomadic turtle was evidence the town was returning.

I could see the restoration with my eyes and hear it with my ears, a full sensory experience in Paradise. The coursing energy of time and activity being reinvested was visceral and I was grateful for it. I felt called to be part of that rebounding circulatory system, but did not have the language nor tools to care for myself in the process.

I tried mightily to manufacture a sense of well-being, posting my hopes and dreams for the town on social media. I reflected on my own journey to Paradise and recruited new staff using phrases that had worked on me like “once in a lifetime opportunity.” I projected the currency of hope inwardly and outwardly in all the ways I thought I should.

My mom bought me purple bedazzled cowboy boots that I wore with pride while I whipped my Prius around town, eventually ripping the plastic undercarriage off of the vehicle during low clearance excursions down private gravel lanes. On my best days my enthusiasm made for an easy ride, on my worst days my grief was a full-blown stop. I wonder now if an outside support system stabilizing the highs and lows of recovery would have sustained me in the job. To achieve that – because it might have been available – I needed to admit the hardships to myself and to others. But that’s not what being a “hero” is.

Because I learned on the job, I immersed myself in the language and structure of emergency response, observed the way hazardous tree removal calls between agencies were run like incident command briefings with situational status reports. I grasped the finer points of eligibility, the expenditure timelines of different recovery grants, the spreadsheets showing the why, how, where, and when of each project. I learned the recovery plan, watched the videos of

its creation, and spoke at community meetings on recovery progress. Weekly, I appeared on the local news before the recovery stats leveled off and COVID took over.

The Town's financial consultant called COVID "a blip" to the "cliff" the community had already experienced. We moved air scrubbers into our workspaces, wore masks, rolled down the windows when we had to drive together. While the rest of the world worked through the complications of COVID, we worked through COVID through the complications of a disaster. How the world's worst pandemic in a century was called a blip shows you the size of the cliff we were dealing with.

I remember sitting in the parking lot of Town Hall one day in my Prius pressed between heavy-duty trucks like a missing sock in a load of sheets. I stared out at trees made of charcoal and soot and couldn't feel anything alive inside of me anymore. I had synced up to suffering of the town and couldn't feel the progress of incremental recovery against the tidal wave of disaster. I lasted just one year working for the Town of Paradise which took me years to understand.

LIFE IN PARADISE

I moved to Paradise in 2008 and stayed until 2011. I found an ad for a small rental house in the local newspaper, "my little blue house on the hill," and settled in with my daughter. Her dad and I separated during that time and he stayed in the Bay Area where he continued working for the City of Berkeley until eventually relocating to Chico. My little blue house had one bedroom, a tiny porch office without insulation, and a closet-sized room off the living space that I decorated especially for Adela. Her canopy bed that belonged to my sister squeezed neatly into one side of the room without an inch to spare on either side, though she slept on the floor in her "pillow bed" most nights.

The little blue house was edged with neatly trimmed box hedges in the front and a chain link fence in the back. It had a beautifully symmetrical shade tree centered in the front yard. The house sat on a flag lot with an even smaller house behind it. The kitchen floor was coated in creaky yellow linoleum that made for a perfect dance floor for our impromptu "dance parties" and the front room had just enough space for a couch and the "whining chair" which I labeled in a glittery sign for my expressive toddler.

My bedroom was on the other end of the miniature house next to the only bathroom I decorated with a rainbow shower curtain and pink polka-dotted towels. The wall between the kitchen and the living room had a two-sided space heater. On cold mornings, Adela would stand on the carpeted side in the living room and I would stand on the linoleum side in the kitchen while we got dressed, talking to each other through the hissing slats while trying not to burn our noses.

In the backyard stood a drying rack on a swivel for clothes, and a shed that held a washer and dryer. Behind both houses toward the main road stood hundreds of tall pine trees creating the feeling of being in a forest, which we were in Paradise. Just down the street was a beautiful, historic brown church we'd run to on winter mornings leaving footprints in the snow.

Adela's preschool was a short drive up the hill and after she "graduated" in her light blue gown she went to Paradise Elementary School right down the street from our house. Even though we were minutes from school, I learned right away that to get her to class on time she needed at least two hours to wake up and get ready. Her kindergarten classroom had huge leaded glass windows that looked onto the front of the school, a defining old-fashioned feature of the building.

Her kindergarten teacher loved Curious George and wore cute t-shirts with the cartoon monkey on them. Recess was held in a small paved area with lines painted for foot-powered cars and a playground. I tried to volunteer at least once a week and on field trips.

When the weather was nice Adela and I would walk to school along the rocky street. There were no sidewalks coming in and out of our little neighborhood and it was noisy with cars going fast in the morning. I loved the idea of walking but it wasn't practical even though we could get between home and school in 15 minutes. We drove most days which set me up to race to work after she was delivered to class.

After the Camp Fire, the mere sight of the school bus yard next to where Paradise Elementary School used to be would bring me to tears.

I've never met anyone happier than her kindergarten teacher, or perhaps more perfectly suited to her profession. I was in my early thirties, getting a divorce, figuring out the rhythms of single

parenthood, highly ambitious but in the non-profit sector which paid very little. Adela's teacher shared her husband's name as did her three sons. "Mom," my kindergartener exclaimed in disbelief after school one day, "you'll never believe it! Mrs. Levin's whole family has the same last name!" This would not be the case in our family, particularly after I remarried years later.

Paradise was a place of deep rest for me even with the high stress of separation and long drives to share custody. The air was clear and clean, the people were friendly, and I felt solid in my adulthood for the first time, supported by a group of incredible women who had also been around the block a few times. I'd never heard "you're welcome" as many times as I did in Paradise. In the Bay Area, "thanks" is the end of each social exchange.

I was convinced I had a fairy godmother – probably yard maintenance my landlord hired when he saw how little I was capable of doing – as my yards were clean and fresh when I got home from work. On hot summer evenings Adela loved to water the tree wearing her plastic pearls, standing under the spray to cool off. After I left the Paradise Chamber and went to work in Chico I'd drive up and down Skyway to and from work, watching the sun rise in the morning and set in the evening – the biggest sky I'd ever seen.

The drive up to Paradise took my breath away the very first time I visited. Skyway follows the top of a ridge flanked by Butte Creek Canyon on the north side and the Feather River Canyon to the south. The road extends into the foothills and eventually into the mountains. It is the canyons on either side of the town that are most fire prone but I didn't know that on my first visit which, as it turns out, was to attend the town's iconic Johnny Appleseed Days.

I fell in love with Paradise at first sight. It was a fairytale community of good people. There were daily conveniences like banks and grocery stores and fast-food places like Foster's Freeze that had long since left the Bay Area, but the town felt quaint and small. The neighborhoods were a mix of lovely homes, rotting homes, and everything in between. My search for a rental house had me touring unsightly, smelly places one minute and gorgeously landscaped ranchettes with circle driveways the next. The little blue house was perfect.

PARADISE LADIES

At the Paradise Chamber my visitor center volunteers were in their sixties and seventies. They coached me on my life choices and invited me over for tea and Mary Kay make-up sessions. Well, they'd invite Adela over and I'd go along with her.

The Chamber Board of Directors was chock full of women who were running businesses and mini empires on the hill. They immediately circled me in the tightest, warmest hug. They could see my vulnerability which, to this day, probably sits on my sleeve like a squawking parrot, but they never made me feel too young or inexperienced for their respect. Adela was a tiny

executive with curly hair who spoke to these ladies as her peer. They had deep patience for her and for me and my 11pm calls when my little executive would debate the benefits of sleep. They were my lifeline, my best friends, in many ways the loves of my life.

After the fire, I felt like I abandoned them after they had given me so much. Their pain was infinitely larger than anything I could hold as their homes smoldered and their lovely trees and porches and cars and pools and gardens sunk into pits of ash. Despite that, as women they would rise like the beautiful phoenixes they are. They would withstand years of RV living while they cleaned out debris and trees, settled their insurance claims, negotiated their Fire Victim Trust settlements, applied for their rebuild permits, endured labor and material delays, then piece by piece rebuild their homes and their lives. As I write this, 5 years after the Camp Fire, one has just settled into her new home in Paradise.

When I first took the job at the Town, I reconnected with Melissa who took me to her property and through the lot of RVs where friends and family stayed. We sat in her quaint little chapel where Adela once decorated Christmas trees and we reconnected over delicious food. She was sturdy and strong and I wept for losses I hadn't yet processed right there in the epicenter of hers.

She was thrilled and complimentary that I was working for the Town but I would splinter and crumble beneath the weight of what I thought I could do. Just this past January she and I posed for a picture together at a sparkly event we used to attend annually long ago. Her hair is silver and her clothes are fashionable as ever, and her husband embraced me in a friendly squeeze just like old times.

THE SKUNKS

The story of my life in Paradise is not complete without the skunks. Adela was young when we lived in the little blue house and she took lots of baths. She'd be in there splashing happily and I'd be in the kitchen talking back and forth with her while I made dinner. The bathroom was simple but pretty and I was so proud of my pink towels and rainbow shower curtain. Pink was the color of our lives in Paradise.

One day I heard scratching while in the bathroom. Eerily, it sounded like it was coming from below the bathtub. But how could that be? Had someone crawled under the house and was now dragging their nails along the underside of the tub? It would start and stop, scratch pause scratch. We had guinea pigs at the time in a big cage on the kitchen floor, and the noise didn't sound entirely unlike Princess and Sparkle dragging their nails along the linoleum.

The scratching continued until one night the smell of skunk bloomed rich and deadly inside the house. It woke me up and clouded my senses, filling my mouth and nose with stink. Something propelled me outside, perhaps suffocation, and when I arrived on the porch the night air smelled piney fresh. Inside: toxic. Outside: cool and clean.

Skunks spraying *inside* the house?

The scratching was male skunks clawing their way under the bathroom floor and into the nest of a female bedded in the walls. Animal control responded with several cages and over the course of a week and a half they captured fifteen skunks and three raccoons. Rodney, my boyfriend now husband, fed the jailed rodents peanut butter and apples, tossing the food toward the cage then running. Adela and I would wake up in the morning and she'd look outside and call out the caged number. "Mom, 4 today!" she shouted one morning before kindergarten.

During that memorable season she and I would arrive at school and work, respectively, drenched in skunk smell, our clothes moist with stink, our food emanating a rancid odor. It was embarrassing but more exhausting than anything, at least for me. Animal control explained the nesting female was in heat and male skunks were fighting over her, spraying each other, the walls, the air, everything, during their skirmishes. Toward the end of the trapping, a female skunk was apprehended but animal control didn't think she was the one. "Watch out," he said as he pulled the traps at my request, "once a female goes into heat somewhere, male skunks return to the same place every year to find her." I moved to Chico shortly thereafter to be closer to my office and away from the skunks.

Paradise was the forest living I'd signed up for. It was snowy and quiet and filled with wildlife and the activity of a tight-knit community with clubs, events, and traditions. The parks were

new and clean, the bike path was a perfect distance from home, the moms of Adela's classmates were thoughtful and earnest, and some welcomed me into their homes.

One friend, Laura, took turns inviting me over to her large, lovely home then bringing her two kids over to my quirky rental. Our favorite evenings were poolside at the gym where we'd swim then sit in the spa looking up at the trees and the stars. It was magical. That's where we were the night before she was tragically struck by her own car while reaching out to pick up something, her kids strapped into their car seats in the back. I held my breath for those few days before she died in the hospital down in Chico, her kids just 4 and 6. Rodney went to her funeral with me and we sat with hundreds of familiar faces in dazed astonishment and grief.

Paradise is where I found my love of riding bikes. It was hilly and I was a climber as I discovered, racing downhill was a thrill I'd never experienced. It was the start of many, many years of fast, exciting road riding before I finally sold my road bike and stuck with mountain biking which I still do to this day. It was coursing down the mountainside with the wind pushing into my helmet and through my hair that I found an exhilaration I hadn't felt in a long time.

Before my dad died, he liked to tell the story of watching me fly down my grandma's driveway on my big wheel. I'd kick up my little kid feet and rip down Holly Lane in a loud plastic flash. "I called you speed demon," he'd chuckle about my bravery. That's what I found again in Paradise, a place to kick up my bigger kid feet, wild and free.

THE SKYWAY

After I moved out of Paradise and work and home were both in Chico, I sometimes found myself halfway up Skyway after a long day. Skyway doesn't have many places to turn around so sometimes I had to go all the way up before I could come down. I'd always shake my head, frustrated at the wasted time, but it was Paradise calling me back. 8 miles up and 8 miles down, big skies the whole way, better, clearer light than anywhere I'd ever been.

From Skyway, when the rice fields are flooded the valley sparkles like a glass mosaic, and when the orchards are in bloom the ground is coated with a pink dusting of cotton candy. A good Samaritan leaves jugs of water on the uphill side of the road during summer so drivers can cool their overheating engines. A lookout fence on the north side is lined with locks engraved and painted with lovers' initials. After the fire, Skyway has far fewer trees, many fallen or limbed and topped, but as oaks do in fire, some burst out with new growth and saplings dot the landscape.

During the Camp Fire, the Sheriff opened both sides of Skyway to one-way evacuation traffic. This is contraflow, cars on both sides of the road streaming downhill in the same direction. Disconnected road segments on the western slope of town left people stranded in their cars,

downhill from the handful of roads that bisected the only routes out. Skyway was the most reliable road out during Camp Fire evacuation and where it once slimmed down to two lanes through town as a traffic calming measure, it has now been opened up again ready for next time.

Imagine heading downhill away from the fire only to reach a gravel road that turns into dead end. Connecting road segments is priority work of the recovery staff at the Town, the focus of federal earmark funds, and a pain point the first community-driven plans set out to resolve. Gradually, as utilities are undergrounded and roads are paved over, the scabby asphalt where people perished in their cars will be less visible. Touring the area with lawmakers recently, Town staff called for a moment of silence on a dead end plagued with fire fatalities. What may be harder and harder to see over time will still be felt by those who know.

I moved to Paradise from a town in the Bay Area called Moraga where I'd grown up and was then renting. The median home price in Moraga as of December 2023 was $1.4M, totally unaffordable for me then and now. Moraga is a charming town, nestled behind the Oakland hills where fog creeps in and sits low before rising and disappearing into mist. The nearest shopping hub is in Walnut Creek which was becoming gentrified with high-end condominiums and exorbitantly-priced clothing from brands like Prada and Gucci when I left. Back then, I loved window shopping and people watching in Walnut Creek where there were still a few classic stores from my childhood. I knew the best parking nooks and hidden restrooms where I could breastfeed Adela when she came along.

Walnut Creek has a sheen to it compared to Butte County, a shiny shellacked feel with a hint of hard exterior perfection. The flowering trees, potted plants, and fountain for making wishes appeal to me. Downtown sits just outside of Broadway Plaza where city streets are lined with glittering trees, iconic restaurants, coffee houses, and frozen yogurt shops. It's walkable and affordable if you're snacking and looking for deals.

The week before I moved to Paradise, I was pushing Adela across the street in front of Nordstrom when a driver waiting for the pedestrians to cross lost his temper. He was impatient and felt slighted by someone, maybe a pedestrian late to the pack holding up his car. I couldn't tell so I shielded Adela from the profanity and pushed on.

I still remember that altercation as an indicator of rage bubbling just beneath the shiny surface of Walnut Creek and the larger Bay Area. It was January of 2008 and quite possibly related to the mortgage crisis which hit the area hard. Either way, I reflected on that moment from Paradise weeks later where bank tellers regularly spent 20 minutes catching up with each customer about rummage sales and bridge games while folks waited patiently in line for their turn.

Paradise was not a place to rush or be rushed. In fact, I only became aware of my tailgating habit in Paradise when I discovered the person I was tailgating was a Chamber volunteer. Now I enjoy poking along rural highways until I hit I-80 and my Bay Area skills kick in. My husband grew up in Chico and we agreed early on who would do the urban driving in the relationship.

I only have three years of memories of living in Paradise but I met more people during that time than 30 years of living in the Bay Area. I went to Rotary meetings, joined the Foundation board, Chaired the Redevelopment Agency, organized Johnny Appleseed days with dozens of volunteers, shopped at Holiday Market, became a regular in the McDonald's drive-thru ordering a large ½ sweet tea and ½ iced tea with extra ice. I tried the health food store, the Thai restaurant, and I loved the chips and salsa at Casa Paradiso.

I was a young woman with my whole life ahead of me and I had the energy and drive to match. In this safe, small town I felt glamorous for the first time having just discovered dangly earrings and bangle bracelets, and the freedom to experiment with style without the pressures of high fashion in the Bay Area. I was a sparkle a minute with my sparkly child and even though our lives were complicated by the custody commute it was the simplest time, too. The strength I gained from my cheering squad in Paradise and my first executive job carried me into a satisfying career in Chico which now, in retrospect, marks my most confident career chapter to date. It took less noise, less social pressure, and less ladder climbing for me to find my happy place.

I thought returning to the Town as Disaster Recovery Director might have the same effect but in reverse. Whereas Paradise once put me back together, I came to help put Paradise back together. But without the Paradise I'd known with those blissful friendships, the safety of the trees, and my carefree spirit, there was no well to draw from. The town needed more than I could give.

CALLED TO RECOVERY

A few years after I moved out of Paradise, I ran into the Town Manager in the ladies' room at a casino in Oroville during an economic forecast event. Still well before the fire she said she thought it was a shame I'd left the Paradise Chamber. "You were our great white hope," she said. I remember feeling unsure how to reply since it was the Town that defunded the Chamber and put the nonprofit on rocky financial footing, so I weakly excused myself and moved on. Still, I felt seen and grateful for her compliment.

In January of 2020, she called and asked me to come work for her as Disaster Recovery Director at the Town. I was quick to say no. I was finally making a decent living in an exciting state association, picturing myself climbing higher into larger geographical significance. I still had big

dreams and left my career in Butte County without once looking back. Quite the opposite, I was lobbying my family to move to Sacramento to relocate our lives and shorten my commute. But that call stayed with me, as Paradise had all those years. I'd avoided going back to the town since the Camp Fire, and hadn't begun to process my heartbreak over the devastation. Working there was not an option.

Gradually, over the course of my long commute, I awoke to the possibility of going back and helping the town that helped me so much. I asked to meet with the Town Manager and mustered up the courage to drive up the hill for the first time in over a year. I'd been in the canyon to my parents' house which was a painful drive through charcoal lots and dying trees but I hadn't seen the town.

That morning, Skyway crested into Paradise just as it always had. Town Hall was on the left, still standing and painted a fresh new shade of slate gray. Across the street where the Chamber once stood, with the cabinets we'd painted and the fancy desk a Board member donated for me, was a weedy patch of concrete and dirt.

I knew I'd be shocked but it was more than that – I was disoriented – like my memory card was empty and my operating system was searching for data. I couldn't take in what I was seeing and felt what I can only describe now as a visual rejection. A hard, hard no.

When I eventually found the courage to look for my little blue house, I passed the grated dirt lot twice before a sliver of box hedge gave it away. I could see straight from the dirt road past where my house had been and the house behind it, all the way to the main road I'd never known was so close, hidden as it was by those trees.

A sense of home is dependent upon what's been added to the environment to create familiarity, comfort, and safety. When those additions are gone, so is that sense of place. Though I could see the patch of earth we'd lived on, without seeing what we'd lived in and around – the house, the trees, the driveway, the drying rack, the porch – my memories could not connect with the place. The little blue house lives on only in my mind.

For the pre-interview, I met the Town Manager in Starbucks which stood like an oasis on Skyway across the street from the Building Resiliency Center, a hub for contractors and owner-builders. Starbucks was shiny and new and filled with friendly baristas in familiar green aprons. I would come to see a sensitivity with this Starbucks, though, as it closed at the slightest hint of fire. When the air quality reached toxic levels during the North Complex Fire and outside work was suspended, Starbucks remained closed for weeks.

But on this day, it was open and I sat with the Town Manager listening to her talk about recovery. "But…," I asked, "is disaster recovery as grueling on the mind and heart as it sounds?"

I wish then I'd listened more closely to what my question revealed about my fears. She assured me it was the most positive, gratifying work I could do, and I believe that's what she thought because it's also what I've grown to think, interspersed with the frustration, rage, and grief.

I was honest about my doubts that I had the emotional wherewithal to face the destruction day in and day out, and she encouraged me to focus on the restoration. With urging from former colleagues to return to work in the area and to take on a behemoth job they seemed to think I was capable of, I ignored my inner voice and accepted. I had accepted a job with this many doubts once before just out of college and lasted three weeks.

For me, disaster recovery is battle. The federal, State, and local governments do not see eye to eye and walk in lock step and there's a reason for that. It's a messy check and balance system where one brings funding and regulations, the other requires compliance with policies and procedures for the allocation of that funding, and the last implements the projects.

HARD THINGS

I have a theory about why disaster workers are reassigned every few months, shipped off to a new disaster to work in response and early recovery. For the most part, the skill sets needed for response and early recovery are trainable, repeatable, can scale, and are temporary. That doesn't mean they're any less taxing which is where relocation comes in, a fresh opportunity to make a big difference somewhere else before burnout sets in. Long-term recovery is a whole other beast that no one arrives four years later to take over.

A few months ago, I was at a conference at the Stanford Sierra Center near Tahoe. It was a hopeful scene: incredibly passionate professionals from rural-based natural resources

industries coming together to talk about prescribed burning, the Farm Bill where funding for forest management sits, and other federal and State policies and procedures that govern land stewardship. I was delighted to attend.

Before I arrived at the Center in Fallen Leaf Lake I curved through the fire-scarred forests of the Tahoe wilderness. The closer I got to my destination the taller and wider a smoke plume grew like an unwelcome sign. It was a brown plume, not black, and it dissipated pretty quickly above the main column but my mind was already running away with me. On the eve of a much-needed professional adventure, here were the panicky feelings of home.

As it turns out, the land stewards were conducting a controlled burn. Over the next few days, the smoke held relatively low to the ground and settled on the lovely, placid lake. But driving in on that one-lane road I estimate I passed at least three traffic-controlled stops due to utility pole replacement, crossed one single-lane bridge, and saw nothing but smoke in my rearview mirror. This is what we tell people not do to. Three strikes of evacuation risk and I'm out.

By the time I parked in the conference center, I was doubled-over in tears. I pressed the registration staff for information. They confirmed it was a controlled burn and apologized for the inconvenient traffic stops happening simultaneously on the one-way-in-one-way-out road. With my sunglasses obscuring my teary eyes I gave them some heavily PTSD-laden advice to email such conditions out to registrants in advance to avoid panic-stricken arrivals such as mine.

The fog of trauma never fully lifted during the conference because neither did the smoke, but I engaged in the ideas and case studies with registrants and speakers, sharing meals and breaks with attendees. I sat next to a speaker from Sonoma who spoke about their controlled burn activities following their successive fires, and her experience evacuating her kids twice. During a federal advocacy session, I talked about the need for more study on long-term recovery protocols and procedures.

Response is a well-oiled machine, early recovery follows relatively similar tenants, but there's no rubric for long-term recovery other than some academic papers on various roadblocks and approaches. At the conference, I envisioned an Incident Management System for long-term recovery, beyond the Emergency Operations Center (EOC) and Disaster Recovery Operations Center (DROC), and wrote about it on poster paper collecting our ideas. The speaker read it out to the class as one of the most compelling concepts which was great to hear for those few seconds; however, there were so few of us in the long-term recovery world that the idea did not gain more traction.

My theory around the revolving workforce post-disaster comes down to avoiding burnout. One of the issues we talk about at the County is how burnout can lead to a loss of institutional

knowledge. One could say that Butte County is prepared for the next big fire because we now have a skillset built off of the last. The thing is, losing people to retirement, burnout, relocation, you name it, we're no more prepared than we were the first time. New folks show up on the doorstep of disaster with energy and willingness to learn, and the cycle of doing hard things continues for those who remain to repeat, iterate, repeat.

COUNTY OF BUTTE

A neighbor who worked for the County used to invite me to go for walks around the block. A few times, even before I worked for the Town of Paradise, she asked if I would like to come work with her. I always said no – I had an exciting opportunity in Sacramento and then I was giving back in Paradise. But as we kept walking, she changed my mind.

On my second day of working for the County the Dixie Fire ignited. A few days later as the incident grew, we assembled in the Emergency Operations Center in Oroville with our overnight bags; I carpooled with my neighbor who showed me the ropes. Information Systems fired up the monitors and hooked up all the computers, County pros found their familiar seats at the Section desks and got to work.

I trained in the position of Liaison which maintains communications between the EOC and the Incident Command Post (ICP), and between the County and cooperating agencies like utilities, other jurisdictions, and nonprofits. Over the next few weeks, I went to the Silver Dollar Fairgrounds in Chico which serves as the ICP for Butte County's "big ones."

CalFire moved into the Fairgrounds with their trucks and trailers and set up their command center, every vehicle and temporary unit clearly labeled with its purpose and function. At each morning briefing hundreds of firefighters would sit through the weather report, safety report, operations report, comms report, and roll call. Days into the fire the number of firefighters would climb into the thousands as trucks packed the site from across the United States.

During those briefings I overheard weary conversations, snippets of, “I can’t believe we’re here again.” One day, as the massive fire shot slow-motion thunderhead clouds from the mountains behind us, a plume of black smoke rose from a lot across the street. Over the sound of the fire briefing, firetrucks could be heard advancing toward us through the city. The Incident Commander raised his voice to be heard over the sirens which were now close by.

Are we burning down, too, I wondered in weary apathy? Nearly, was the answer, as an RV blasted and cooked across the street, a surreal smoky sight given what we were all there to do.

THE FELLOWSHIP

When I first started this fellowship, I was under the impression that we are recovering too slowly from the Camp and North Complex fires. As of the 5th anniversary of Camp Fire in November of 2023, 14% of the homes lost in the unincorporated area had been rebuilt. For North Complex, 4% had been rebuilt after three years. I walked into the first cohort gathering feeling like a failure at recovery.

What piqued this investigation was seeing emails from Stanford Impact Labs (SIL) that I deleted at first thinking they were spam. A week before the application deadline I took a closer look and saw a very inviting prompt asking what issues we’re trying to solve and how we might use data to solve them. County staff was in the midst of preparing an item for the Board discussing extending Chapter 54, the urgency ordinance for North Complex survivors. The urgency ordinance allows survivors to remain on their properties in temporary housing without an active building permit. Under standard code, a building permit is required for a property owner to live in an RV on their property during construction.

I forwarded the email to my boss and asked if she’d take a look. I explained a quick outline of what I was thinking. She had a few questions, we went back and forth, then she supported the idea of applying. I remember bringing her the letter of support to sign and, feeling giddy, said, “thanks for doing this, I love a good Hail Mary.”

I was then selected as a finalist, interviewed by a panel of experts and SIL staff, awarded the fellowship, and found myself nervously navigating the Stanford University campus looking for our meeting room. The breakfast outside tipped me off and in I walked during self-introductions, delayed by not one but two stalled vehicles in center lanes going through San Francisco.

Cohort Gathering, November 30 – December 1, 2023

The first assignment that day was to draw a vision postcard of what our community would look like if our projects were successful. This was easy for me. Ideally, a resilient community is, as I

said, the period at the end of a sentence that starts with disaster. I picked up the crayons and pens and drew a lovely idyllic scene with underground utilities, homes spaced apart with plenty of defensible space, an interconnecting evacuation route, plenty of water providing ample recharge, even a site for carbon injection though I only understand the idea conceptually. Dotted throughout my landscape were goats and cows grazing – nature's finest weed control.

When asked to share our problem statements I explained our fires and stated we are recovering too slowly. I gave the stats, drew a chart on the whiteboard, and showed the progression of the rebuild over time. I talked about the layering of disasters – spillway incident, fire, pandemic, drought, more fire – and the compounding effects. My cohort fellows all have equally pressing topics dealing with similar themes: vulnerable populations, systemic disadvantages, equity, programming, services, grants. I listened with genuine interest to their stories and problem statements and by the end of the two days I was as hooked on their endeavors as I was on mine.

Late in the first day we were walking through how to form up our research when a lightning bolt struck my brain directly, the first of many. I'll call this the tide of obviousness that would roll in throughout my research.

I was sharing the names of the federal and State agencies we work with and the role they each play in recovery. I explained the Federal Emergency Management Agency (FEMA), California Governor's Office of Emergency Services (Cal OES), California's Department of Resources Recycling and Recovery (CalRecycle), the U.S. Department of Housing and Urban Development (HUD), and California's Department of Housing and Community Development (HCD).

I talked about the theory of local control in the face of all of these agencies, and how it appears to play out in my perspective, with the highest-stakes decisions made the highest up. I felt agitation in my body as I talked about the 14% and the 4%, a feeling of shrinking and suffocating at the same time. We should be so much further along but nobody knows the barriers better than we do, so why is my recovery meter set on "too slow" when no one – not even these huge agencies that work on disasters all over the country – can tell us what the pace of recovery should be or how to do it?

My lightning bolt: what in the world does recovery even mean?

If I can't answer that question, is it fair to say we are recovering too slowly? Had FEMA sat us down and said by year 5 you should be here on this linear route to recovery, with this many homes rebuilt and this much infrastructure restored? That's not possible when many of our largest infrastructure and staffing projects are held up in FEMA review. Had Cal OES provided us with metrics to measure and advance our efforts so we could keep pace with expectations? No, not when the repayment process for our very first recovery effort, debris removal, is still unresolved.

And…expectations. Whose expectations are the agencies working in recovery trying to meet? Survivors have expectations, the Board has expectations, the funding agencies have expectations, were any of them the same? Had expectations ever been articulated side-by-side to reveal alignment and differences other than during public comment as urgency ordinances were extended? To a person, recovery means different things.

I walked in to the fellowship with a black and white statement that we are recovering too slowly, but who sets the pace for recovery, and who gets to decide what recovery is?

DEFINING RECOVERY

After the cohort gathering, I sent out a series of interview requests to those working in and around the recovery. I asked local government staff, local agencies and non-profits, then I went up the chain and asked for time with statewide associations advocating for housing policy changes. I even sent a few invitations to organizations well outside of California but those cold calls went unanswered. In addition to connecting with people working in recovery, I went digging for a definition of recovery. I'd certainly been in and out of these federal and State documents over the years – the federal disaster recovery framework, articles, guidance – but this time I was on a very specific mission: who holds the definitive definition of recovery?

Turns out no one. The most common definition of recovery describes the act of recovering, not the state of recovery itself. The federal and State definitions, which are different, talk about

capacity and coordination. According to FEMA, recovery is, “the capabilities necessary to assist communities affected by an incident to recover effectively.” (P. 7, NDRF).

William Siembieda, PhD and Professor at Cal Poly San Luis Obispo, sent me a few more definitions:

“In a sentence, we believe that recovery of a city system means becoming a viable, adaptable system with a new normality in the post-event context. The establishment of viability in the present and for the future is the critical variable that defines recovery. It means that the system has a developmental capacity projected to result in continued self-sufficiency and that its key institutions are coping with and adapting to changing aggregate needs of the functions.” (Alesch D.J. and W. Siembieda, 2012, International Journal of Mass Emergencies and Disasters, August 2012, Vol. 30, No. 2)

And:

“Recovery is a complex, multidimensional, nonlinear process. It involves more than rebuilding structures and infrastructure; rather, it is about people’s lives and livelihoods. The process has no clear end point and there is not necessarily a return to what existed before.” (Johnson and Hayashi 2012, International Journal of Mass Emergencies and Disasters, August 2012, Vol. 30, No. 2, pp. 121-238)

When I pressed Professor Siembieda on the inherent challenge of recovering without a universal definition he said, “Quantification is NOT common in definitions of recovery. This is because most practitioners find it is difficult to establish a meaningful measure against a time line. If you find a useful ‘quantitative’ definition of recovery, let me know.”

I turned to the dictionary. Recovery is defined as a return to a normal state of health, mind, or strength; the action or process of regaining possession or control of something stolen or lost.

Is recovery a return to what used to be or what has to be? After wildfire, these definitions seem to be at odds.

My dearest career mentor once told me a goal is not a goal if the outcome can’t be measured. She told me I was wasting my time with ideas and visions if over time my progress couldn’t be measured. Do I teach my children to do their best or get As? Well, the former in my case. But how do they know they’re doing well if not for the grading system?

I think we can agree on a few recovery basics. A non-linear process, sure. Complex, multi-dimensional, absolutely. Lunacy as it sometimes feels like, without a doubt. Quoting one of our longest-standing HCD disaster grant reps, “disaster recovery is pushing a pig through a python.” But how long is too long for a pig to pass through a python? And how long is that python?

I got curious about what definition local agencies are working with to measure their own success. I interviewed the Executive Director of the Butte County Housing Authority, and he said disaster recovery is "disaster patronage." Meaning, recovery is throwing a few well-intended dollars at a gaping hole of need and expecting people to be grateful. In an interview with Cal OES, staff described it as "a down payment," meant to restore the tax base or stabilize the community enough to make strategic decisions. In both definitions, recovery is a start but certainly not a complete restoration. Different definitions, similar results.

If recovery is only a tiny step, what do we call all of the steps that come after? And once we take the step we call recovery, do we then consider ourselves recovered? If the total spend-down of all federal funds is supposed to represent a down payment, and we're left with a restoration of, say, 15% of our homes at that point, do we consider recovery complete and the community recovered? So many questions.

It appears we use the word recovery to vaguely describe the process that follows disaster when we only mean it to define the period in which federal funds are spent. Those federal funds are highly restricted to be used on housing, infrastructure, plans, services, and mitigation. And those funds, in our case post-Camp Fire, come years after the disaster occurs. Is the pass-through of those funds to the projects that hit the ground 5-10 years after disaster our only act of recovery? And what if those funds don't actually lead to the recovery of survivors as is often the case?

A year ago, I was talking to the Editor of the Chico Enterprise Record, our local newspaper, about recovery. He was asking whose responsibility it is to make everyone and everything whole after fire. I explained there are several different kinds of recovery that fall into three main buckets. One is 'individual recovery' which occurs at the household level and is led by a single person or a team of persons to utilize existing funds and capacity to rebuild or relocate. It is the recovery of a single family or a single person and it can lead to a number of different outcomes. Not all recovered households look the same and not all households recover.

Then there is 'government recovery' which is the draw-down of federal funds to be used toward eligible projects that rebuild and restore and, in some cases, expand the physical infrastructure needed to support community recovery. These projects include water and wastewater system repairs or upgrades, road repair and reconstruction, subsidized housing funding meant to match other sources, evacuation planning, radio receivers for emergency alerts, essentially large public projects meant to scale across the impacted areas and beyond for mitigation purposes. These projects are not led by a single person nor even a single government. They result from braiding federal funds and law, State rules and requirements, and local policies and Board actions.

Lastly, I explained 'community recovery' as the act of motivated individuals who collectively restore beloved community art pieces, spaces, and landmarks which are often ineligible for federal recovery funds. These are artistic, cultural and historical treasures that the federal government doesn't see as necessary for the restoration of the tax base, housing and public infrastructure, and/or are not publicly owned. Many people believe these projects are needed for healing and wholeness.

Looking back on this conversation I see that I organically knew then what I've discovered in this fellowship by digging into the literature. There is no single definition of recovery – it depends on who you ask, what you're asking about, and who is responsible for it. Just last week I laughed over email with my cohort mentors around the fact that I now refer to myself as "Captain Obvious," discovering things I already knew and that are widely known and accepted.

I find it so interesting that if we already know recovery can't be defined or measured beyond the convergence of a million different recovery-like acts, why do we hold ourselves and our communities to certain standards and expectations? I think the simple answer to this is that we see unbearable prolonged human suffering and no one wants to face the truth that recovery won't happen for every person and every place.

During the Cal OES interview when "down payment" was mentioned no one flinched or rebutted. If it is generally accepted that recovery is a down payment funded by the federal government, then it must be true that the community is expected to come up with the remainder well beyond the local match. If it isn't known immediately post-disaster if the community can carry the mortgage, even nominal payments amortized over decades, then I wonder if the down payment is a bit of a test.

The funds we manage at work, CDBG-DR, are meant as "last in" funds to cover unmet needs. They are congressionally appropriated shortly after FEMA Major Disaster Declarations and administered by the U.S. Department of Housing and Urban Development. In California, the State Department of Housing and Community Development (HCD) is the recipient of these funds and here's what they do next:

- Gather data to understand the uses and allocations of the funds. i.e., determine how much money should go to each category of need, and the ways in which the funds should be spent by the State or by jurisdictions impacted by disaster;
- They look at the number of impacted homeowners and the rate of insurance to determine if there is a gap between available resources and the current cost of replacement to rebuild single family homes;
- They look at the number of businesses impacted and the number of recovery loans administered;

- They look for data to validate how much money is needed when all other funds are expended.

Ultimately, HCD is constructing a defensible, transparent, data-driven framework that yields a dollar value of unmet needs in a variety of categories that they will then cover a portion of with CDBG-DR. The Action Plan which is the State's strategic policy document for implementation takes years to develop and goes through several rounds of public comment. Over the ensuing years of recovery, the Action Plan can be amended a number of times, both substantially which requires another public comment period, or insubstantially which does not. One way a local government can express frustration productively is to utilize these public comment periods to document the challenges of utilizing the funds as intended.

In the case of the Camp Fire, CDBG-DR represents an incredible sum of money exceeding $1 billion dollars meant to aid all the fires under the DR-4382 and DR-4407 presidential disaster declarations of 2018. In this case, Camp is included with the Woolsey Fire in Malibu, and both Butte County and Malibu among other jurisdictions are eligible for funds that are highly restricted to meet unmet needs identified by the State.

I will go into recovery planning later but here's where the federal and State levels diverge from the local government level, making a cohesive recovery plan somewhat challenging to create. Federal funds, which are the largest single source of funding for recovery, are highly restricted and complex to utilize and may not match perfectly with a local jurisdiction's needs. If a community envisions its future in a recovery plan and federal funds do not support that plan or are at the very least difficult to shoehorn into that vision, a community can be left with a divergence in recovery that no single agency has the power to reconcile. This is why adaptation and flexibility are so critical during the recovery process, which can be a hard pill to swallow for a community that needs very specific support to realize its vision.

When most people look at ghostly images of wildfire destruction, I am sure they think first of humanitarian aid which is necessary for meeting immediate and individual post-disaster needs like shelter, food, clothing, medication, and other basic supplies. Well-intended donations made by individuals and businesses (and sometimes celebrities) flow in to impacted communities meant to directly support fire victims.

Humanitarian funds given charitably by donors are among the most flexible kinds of recovery funds there are. They are often overseen by local non-profits or foundations governed by a Board of community members who set criteria covering a wide net of possibilities. The non-profit might come up with the ways in which the funds are spent, and/or those who apply might define their needs. Either way, once those funds are awarded, they are likely not tracked for the next 30 years and doled out in dollar-for-dollar reimbursements with monthly financial

and activity reports that justify every expense as is the case with federal funding. Local organizations stewarding charitable recovery funding can answer the call of human need without measuring that need beyond what they can gather given their proximity to the impacted area.

Local government, on the other hand, have all the data to understand the local impact and none of the control over how to spend federal recovery funding short of prioritizing eligible projects.

DOWN PAYMENT

Down payment funds for recovery coming from the federal government in the form of FEMA Public Assistance or CDBG-DR is taxpayer money. It is not governed by a local non-profit made up of Board members who live in the community and witness first-hand the need. It is governed by FEMA or HUD, located well outside of our burn scars in Washington, DC. Despite federal and State representatives who arrive when the fire occurs, funding decisions are not made at tables where those representatives meet with locals. Conversely, local governments must plead their cases in one public comment letter after another which, to be honest, feels like shouting into a void.

I imagine if the federal government is making a down payment, they are going to first run the community through a credit check to see if there's a robust enough economy to support those mortgage payments once the deposit is down. To us, failure to use those funds feels like recovery tragedy layered upon disaster tragedy, whereas it might be stemming from a business decision made on the opposite coast.

Take owner-occupied housing reconstruction loans (OOR) administered by the State according to their rules in the Action Plan. The application period opens a few years after the disaster when insurance proceeds, if there are any, have likely been spent on emergency housing like RVs. Households needing these OOR funds do not have enough resources to rebuild on their own. If they've spent their insurance proceeds which are considered funds for reconstruction, then they have to come up with another source of funding to essentially "reimburse" what they spent on their RV so they can add it to their rebuild budget to qualify for an OOR loan. This is called duplication of benefits. Funds from the federal or State government must not duplicate other funds meant for the same thing. Strike one against the homeowner who out of desperation waiting three years for a rebuild loan from the government spent their only funds on temporary housing.

Let's say the State has carved out $157M of $1B for OOR and after three years qualifies 11 households of the hundreds still in need of housing. Those 11 households will work with the

State through the rebuild process and will eventually move back into safe and secure permanent housing.

The rest? Households that cannot be helped by the funding of last resort, say because of duplication of benefits, are then left to their own abilities to recover. As we know too well in Butte County, any delay in permanent housing prolongs displacement and increases the risk of homelessness for disaster survivors. In the case of post-wildfire remote rural living, homelessness is nearly invisible unless you know where to look.

WINDFALL OF NO

I hadn't even left the Town of Paradise yet when I started calling the allocations made for disaster recovery a "windfall of no." We'd hear about gigantic sums of money made available for survivors and our government, often reported in the media as a "windfall" and as we started to read the fine print, maybe paragraph three out of 400 pages, we discovered those funds would never touch down.

Duplication of benefits is a big one. So is income qualification. LMI data is often pulled from pre-fire census numbers which were based on the presence of employed people and insurable assets. Where are those people, those jobs, those homes after fire? Not where they used to be.

Paradise lost one of the largest employers in the county paying some of the highest wages for the highest skilled work. When Feather River Hospital was unable to reopen after the Camp Fire those doctors, nurses, medical personnel, administration, facilities, each and every person had to find another job whether they were relocated by the company or not. This took an immediate but invisible toll on the recovery as those relocating professionals sold their lots or standing homes when they left the area to find jobs. The exorbitant need for housing after the fire also led to early retirements and out-of-state relocations for many professionals who saw an opportunity to sell their houses at demand-driven peak prices.

In California, HCD acts as a pass-through for federal funds from HUD. When I was at the Town, they agreed to sit on a zoom call with us while we made the case that post-fire data should be used for determining LMI eligibility. The State agency director watched while we pulled up drone footage and scoured the barren, broken, ashen landscape where street after street had maybe one or two standing homes if any.

"Doesn't this area qualify for recovery funding meant for vulnerable, disadvantaged populations?" we asked incredulously. The answer was no. Due to the timing of the last census, income limits were based upon a population that was no longer there, which seemed as ridiculous to me as deciding to administer treatment for a diagnosis made during autopsy. Whether or not it was intentional, the barrier felt strategically placed.

RECOVERY RAGE

Back to the down payment, I expect the stewardship of taxpayer money at the federal level means those funds are not poured into bad investments. But there we set up the catch-22 of recovery which is a sound but complex investment. If the federal government or State observes in testing the down payment that there's not a penny to be put toward the mortgage for miles, will that windfall be made available to the community or will the barriers continue to appear and rise? As a taxpayer, I hope no funds are used with wild abandon. As a human being sitting in the midst of this suffering, it is unbearable to think of even the slightest withholding.

I arrived in the world of disaster recovery a year and a few months after the Camp Fire so it's quite possible that when recovery conversations first occurred these hard truths were spoken with the local officials. I picture a long, shiny boardroom table where the federal government sitting at the head explains they will give a little and see if the community can cover the remaining 80-90% of the sale price. Whether nor not this conversation occurred, and I doubt it did in the way I am imaging which looks a bit like a Far Side cartoon, I have picked up these observations through the process of recovery.

The magnitude of my personal disillusionment says a lot about the federal and State government, but more about the level of earnestness and trust I once had for doing the right thing. I remember asking the new Town Manager in Paradise who arrived shortly after I did if I was supposed to be in a rage all the time. He said absolutely. If I wasn't enraged by the mind-numbing contradictions of recovery, I wasn't paying attention.

A few months after the Camp Fire my parents and I met in a local coffee shop to comb through their insurance claim. I was working remotely for my job in Sacramento and they were popping in to my "office." Minutes into the conversation my mom was in tears about how little her insurance adjuster cared about her situation. She wanted to send him a letter admonishing his apathy and encouraging him to care about her loss. No, mom, I said, don't waste the emotion that will take to write, it isn't his job to care, it is his job to help you recoup as much as you can from your losses.

Imagine if he cared for her and the dozens, maybe hundreds, of people weeping on the other end of his phone line. He could and probably did show compassion, but I've found the effects of secondary trauma – the act of taking on someone else's heartbreak as your own – can linger for years. Whatever boundary he was setting up, whether it was trained or elective, guarded his heart. For my mom to put this much work and time into her insurance claim, to withstand the act of remembering all she'd lost, she needed her adjuster to see the meaning in the list not just the value.

I wasn't the one to show deep compassion for their losses at that time either. My dad died in October of 2016 and I closed out his estate in October of 2018, just one month before the Camp Fire. I spent two years selling, moving, bartering, tossing, donating, and storing his house full of clothes, books, furniture, tools, boats, cars, motorcycles, you name it – everything left when a life in full swing is interrupted. I couldn't bring myself to care about the stuff my mom lost in the fire, it was grief on top of grief which is what leftovers feel like when there is a death in the family. I'd lost my dad and was left with this stuff; my mom and stepdad were very much alive and their stuff was gone. I preferred the latter and stuck to that lane. Either way, I lacked the language of trauma which is taking me years to understand.

I have never been prone to rage and was entirely unfamiliar with it when the fire happened. Sitting there with my mom in what was supposed to be a soothing place of bakery scents and warm drinks I could feel nothing but rage. I tried to find my value by producing an orderly list they could follow, writing down steps that must be taken, making recommendations for who to call, talking them through the fact that the smoke remediation company might not have called them back because they were overrun with calls.

At this point they were still displaced, living with my sister in the house she rented from them in Chico. Not long after the fire, during this period of displacement, my stepdad was hospitalized with sepsis. He was a survivor helping survivors, trying to keep up with his real estate business and clients in the Paradise market. In the midst of the post-fire turmoil, he came down with a routine illness that quickly turned into something worse and he collapsed in the street. At the hospital, he sat hooked up to hospital monitors while pounding furiously on his laptop and shouting into his phone. He was trying to reconcile some of their finances and move money between assets while having his life saved which, to me, seemed like an afterthought.

Looking back on this now I understand his panic. He was in the business of housing and overnight the county lost more than 15,000 housing units to fire, 14% of its total housing stock. Ken sold properties in Paradise weeks before they were destroyed, leaving his clients homeless while they were still moving in. He and my mom own a number of single-family rentals in Chico that were in desperately high demand. They had hard conversations about the ethics of releasing tenants from their leases so friends could move in to their rentals – so they could move in themselves. Displaced renters in a housing market flooded with buyers and renters created its own wave of upheaval. Ultimately, my parents decided not to break any of their leases and thankfully Ken made a full recovery.

I interviewed Carl, a residential realtor from Coldwell Banker, for the fellowship who retired recently after experiencing the same chaos I saw in my family. He told me he is looking forward to gardening and traveling and moving past the intense stress of real estate during the disaster

aftermath. He and Ken retired at nearly the same time, five years post-Camp Fire, which marked a turning point for many professionals working in or adjacent to recovery.

Reflecting on my own head space when Ken was hospitalized, I was in no shape to help with disaster recovery. I was a stressed-out mom working full-time 70 miles away, dealing with the fallout of the fire on my family. My youngest sister was pregnant with her first child and housing our parents and my kids on and off at her house in Sacramento. My other sister had a toddler and was housing our parents on and off in Chico. I was overwhelmed and paying attention only to what needed to be done in the moment, not what needed to be felt and processed related to the Camp Fire for the long term. There was no time for that, nor did I even know where to begin.

From my home I could see the FEMA local assistance center set up in a vacant big box store across the street. RVs moved onto my neighbors' lawns and into nearby construction sites. I think more than anything I could feel – because I heard about it from friends and family and saw it on the news and on social media and in every nook and cranny of Chico – the infinite heartbreak that comes with a disaster of this size. The fire was out, but it was everywhere and it was not going away.

INVOLUNTARY SPROUTING

Rodney and I drove up the ridge before I started my job at the Town to take it all in together. It was his first time seeing the town after the Camp Fire, and I felt it was important to see as much as I could in the safety of my family. I remember Rodney had a positive outlook as we

drove, focusing on what survived and the reconstruction in progress. I shared his perspective while I tamped down my heartbreak.

Our youngest daughter, Heidi, was around 7 years old and sat in the back of the car. We drove above town limits into the unincorporated community of Magalia and from a pull-out we could see across to Sawmill Peak where the fire had scorched the trees. Not a single thing was alive between us and the peak aside from weeds, and I was devastated by the sea of destruction.

"How beautiful," Heidi said quietly, marveling at the sight, shocking me completely. I could see nothing but desolation and miles and miles of destroyed habitat but she saw something else. It made me teary, proud, and worried. I was thankful she could see what was left and still find it magical, and I worried her eyes were already attuned to the effects of fire. Heidi is wired with goodness, however, and I do believe she saw something pretty in the scenery that day, even if it was just the vastness between her and the mountain.

When Carl, the local realtor, spoke to me for the fellowship he confirmed my theory. He said new buyers find Paradise just lovely. They can see the valley from their hilltop homes, sunrises and sunsets, big sky vistas, and twinkly lights from rebuilt homes around them at night. They can look across the canyons to the ridges on either side of Paradise at stunning views. I can certainly see the appeal.

Before the fire, homes were nested deep within forested pockets, enclosed, shrouded, private. The ground was shaded and carpeted with soft pine needles that absorbed every sound. The feeling of being small and safe that trees provide – that was Paradise. Forests put life into scale much like the ocean does. Above Paradise, in Magalia neighborhoods that survived, homes still have that summer camp cabin feeling.

I remember the sound of a giant pine tree falling late one night in Paradise. It must have been 100 feet tall and all I heard was thunderous cracking and breaking before the ground shuddered like an earthquake. Being from the Bay Area I thought it was an earthquake and I rushed out of my house into the silence of an unconcerned neighborhood.

The older I get, and the more I learn about the land, the more I understand the correlation between elevation and trees. Madrone trees, for example, grow between 2,300 and 3,200 ft. above sea level in our region. So, you might have an idea of how high up you are when you spot one. A friend seeks out forests that mimic the elevation of the home she lost in Paradise so she can be surrounded by the same mix of trees and shade and scents.

I have always loved trees and in retrospect I see I took them for granted when I lived in the Bay Area. I enjoyed the oaks, eucalyptus, and cypress without a single thought of when the limbs would drop, if they were diseased, or if they were at risk of fire. I simply enjoyed their beauty as unchanging fixtures on the landscape.

In the Bay Area, I was attuned to the coastal fog and the bay views from the freeway system. Like Eskimos can explain snow, I can explain fog. I didn't realize how thickly the bay smells like ocean until I moved north to the grasslands where everything smells like soil. Now, my nose can spot the ocean from 30 miles away and valley orchards smell like home.

I learned a lot about trees from the arborists and foresters working on the hazardous tree removal program in Paradise. They showed us signs of tree life and death. They could place the likelihood of a tree's survival on the size of its remaining canopy and the scaling of its bark. Some tree species can survive with only a third of their canopy intact, some need much more. An arborist would analyze a tree then explain that if could survive the next 18 months it would live out the rest of its life.

Amazingly, the bark told the story of the heat of the fire which tended to burn hotter the closer a tree was to a home. I remember one forester pressing his fingers into the bark and explaining how hot the fire burned and for how long, and, based upon the surrounding circumstances, why the fire didn't entirely engulf the tree. Flame marks on a tree trunk can be read like tea leaves, and he could see the fire by reading the tree. He'd worked on many fire recoveries as an arborist and I saw in his eyes and heard in his language a skillset I never knew existed. Trees tell the story of fire in a way nothing else can because of the way they stand and bear their scars after everything else has been scraped away.

A few years after the Camp Fire, hundreds of trees grew mossy and fuzzy along their trunks. They had no leaves on their bare, blackened branches, or no branches at all. I called these "toupee trees" for how they were trying to cover themselves but were missing leaves in all the right places.

"That's a dead tree there," said a forester, breaking my heart. "But…it has plenty of leaves sprouting from its trunk," I countered. "No, no," he explained, "those are the tree's last gasp of photosynthesis. It is involuntarily sprouting as it is dying." Involuntarily sprouting as it is dying…nature's forced last breath. I explained this phenomenon when taking consultants and officials on tours of the town. They'd argue with me as I argued with the forester, wanting to believe the toupee trees were alive. There were so many of them and they still stood so proudly, survivors as they would have the untrained eye believe.

THE OBVIOUS

I am sharing what I've learned the hard way that now seems quite obvious. Jennifer Gray Thompson from After the Fire told me, "Don't assume people know. Tell the story. Have the audacity to will it into being." If there's one word I hear over and over about wildfire it is "understudied," so maybe this isn't obvious after all.

Disaster recovery has taught me the art of getting comfortable with the uncomfortable. It's not the not knowing that's hard, it's the compounding effect of uncovering layers and layers of the unknown, limitless, infinite, inexplicable layers. There is nothing repetitive nor linear about disaster recovery. There is no mastery of a single transaction or program that reveals any more about recovery than what it says about itself. I was reading an academic paper on wildfire-driven migration recently and one page alone contained 31 research citations. What we know about recovery is pieced together from a myriad of sources.

A few months ago, I heard Adam Grant refer to the experience of starting over mid-career as a "skill decline." The way I understand it, you may have to take a few steps back career-wise in order to advance in a new direction. This has certainly been my experience leaving the

nonprofit world and entering government recovery. I would guess that most people who find themselves in disaster recovery do so without formal training. They may be compelled by disaster to jump into the field, or they may be invited in like I was. Either way, entering the field requires a full reboot, a humbling start-from-scratch skill decline. In my observation, there are no hours you can take into disaster recovery from any other profession that will add up to 10,000 on day one; there is only the first hour of the first day of the first week and so on.

At the Town and at the County I've been entrusted with supervising programs I've had to learn about during supervision. Saying this out loud doesn't strike me as uncommon in the working world, people constantly shift to oversee programs and services performed by other people and teams. There is something different about disaster recovery programs, however, in the way that uncertainty never goes away and, for many staff, by the fact that emotions are heightened by their own trauma. Maybe it's a feeling of responsibility for the public that's driving up the stakes. Maybe it's our team's annual budget of $110M in federal grants that far surpasses any non-profit I've ever led. My annual budget at the Paradise Chamber was $168,000 back in 2008.

The phrase 'federal regulations' is intimidating on purpose, translated in layman terms to mean "the decision is not yours to make, and any mistake will cost you dearly." Federal labor standards compliance is precision science where the rules change frequently. Violating one requirement can result in a recapture of all granted funds after they've been spent. Policies and procedures differ from program to program and must be followed with demonstrable, reportable exaction. The Stafford Act is dense. Due diligence involves assigning authority during public meetings, debarment checks, site control, audit reporting, and environmental review. Monitoring requires annual federal single audit reporting and decades of oversight.

The State is its own distinct layer, cushioned between the local and federal governments, an entire atmosphere buffering rock from space. The State has its own personality, its own posture, its own rules in disaster recovery. It is designed to hold tension between federal obligations and local realities. We often refer to the State as a second national government given the size of California's economy which means we are a small county dwarfed by two world superpowers who are not always on the same page.

Dr. William Siembieda says taking federal money is like making a pact with the devil. He refers to his research in Chile where the private sector swept in and rebuilt homes in less time than it's taking us to set up federal grant-funded programs for recovery. He says FEMA doesn't mean speed it means money, and there's no way we can get both. If we're taking in federal funding and expecting a fast recovery, we're signing up for disappointment.

I asked a legislative analyst with the Rural County Representatives of California if she believes the State is prioritizing housing construction in urban areas post-fire to both de-prioritize rural

living and to solve the homeless crisis. The overarching decision, as she explains it from the State's perspective, is to funnel housing to urban areas where the pinch of homelessness is felt and seen more acutely than displacement caused by rural wildfires in areas where homes burn again and again.

My fellowship mentor connected me with an associate professor using data to improve community projects. Her work looks at how proposed public infrastructure projects inequitably disadvantage vulnerable populations, and how governments might use data to explore more equitable approaches to the project, so that it can be designed differently, better, to reduce those impacts. I appreciate these conversations because I find the academic approach to sweeping social issues fascinating. It is often guided by data and research we don't have access to or the time to absorb in full. Working on the macro level also seems like a less emotionally taxing way to make a difference.

Sometimes, though, the delivery of well-intended research misses the mark. A group of researchers called us in Paradise a few years back to say they modeled out a series of rebuild scenarios to see which would reduce the risk of repeat catastrophic fire the most. They concluded that if we rebuilt in the center of town, with densely packed houses on both sides of Skyway, avoiding building homes out to the ridges on either side of town, we'd be looking at the most sustainable, lowest-risk recovery.

Sure, we said, but the properties all the way to the ridge are privately owned so what do you suppose we say to those property owners about their right to build on private property without any exchange or incentive to move? And how do you propose we build dense housing in an area 100% reliant upon septic where lot size has to account for leach fields? And what about a local build-back policy that honors property owner rights to construct homes similar to what they lost?

On paper they had a point. If recovery was linear and sewer came before housing perhaps the density option was feasible. And consolidating housing along the largest evacuation route makes sense, leaving the ridges most susceptible to fire unpopulated which benefits insurance ratings. On the cost and access side it also makes sense because central housing wouldn't have to contend with private road maintenance and single-lot gates. This is the master planned development solution offered by the CA Building Industry Association executive.

But…this model leaves out key factors that drive reconstruction in a town like Paradise. It does not account for the preservation of personal choice after catastrophic loss. And it assumes the wrong things about what government may or may not be willing to do on behalf of their disaster-impacted constituents. And it completely overrides the capacity of the existing local

infrastructure. And on and on. Plus, for us, a little more than a year out from the fire, hearing the impossible was the only way to reduce risk left us dismissive at best and bereft at worst.

DESTROYED COMMUNITY

I shared with the associate professor a desire for institutions who are not in emergency management to recognize and adapt to a new definition of community: destroyed. This also requires a recognition that communities not impacted by disaster are intact, which feels like a fleeting reality we should not take for granted anymore.

Federal and State funding eligibility is tied to a community's ability to leverage the proposed grant-funded investment to improve the quality of life for disadvantaged populations. Those abilities are pretty straightforward and generally require servicing low to moderate income households. After a fire, however, there is often not the presence of people of any income nor households. And also, snapshots of the population are taken only occasionally through the census. Those funding agencies often rely on the last census data even if it precedes disaster and reality has radically changed.

This is where I'd love to see the field of disaster recovery develop a destroyed community definition. 89% of the housing stock was lost in the Town of Paradise following the Camp Fire. It's a real number that appears on paper that should be taken into account during recovery instead of pre-fire data calculating an income level average based upon the pre-existing housing stock.

The millions of dollars available for recovery have to be used in such specific ways according to such specific standards that they're often not attainable for impacted jurisdictions. We'd be on a scoping call with hazard mitigation funding reps – think government shark tank – who were pleased with the volume of funds available to assist, only to hear our ideas shot down one by one. As a new disaster recovery professional at the time, I pitched projects in the Long-Term Community Recovery Plan and reasonable accommodations needed throughout the community. If I wasn't using the correct terminology, we'd have to pause for someone to read through the federal regulations. I learned quickly that disaster recovery is not the place for common sense.

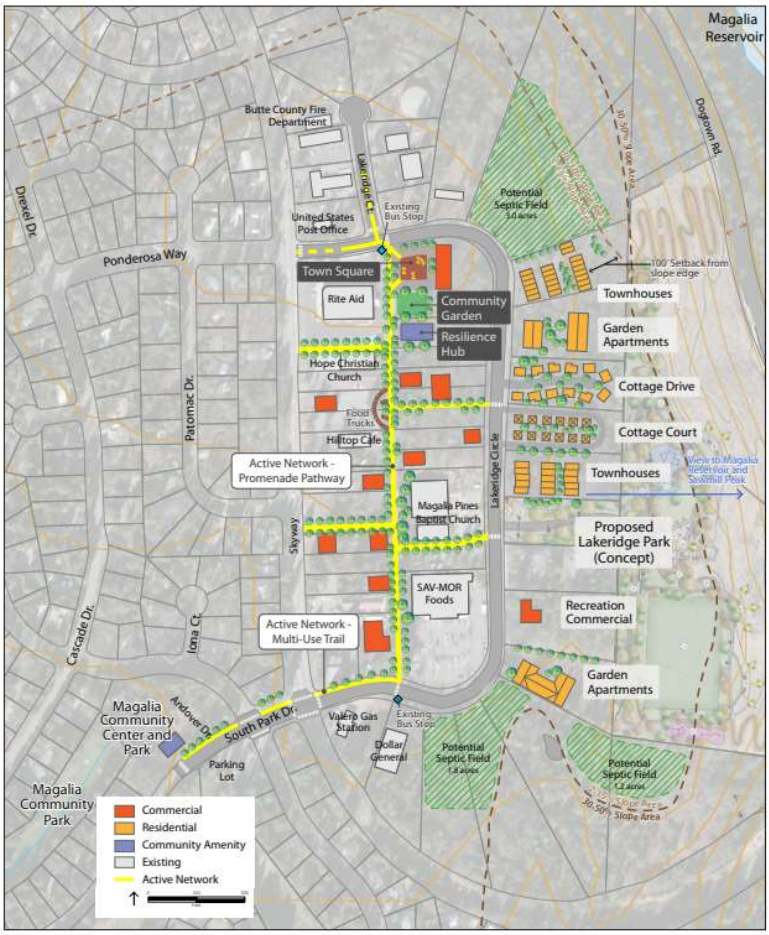
Threading the needle of disaster recovery grant eligibility when communities are destroyed is not impossible but it's certainly more complicated than the funding notices would have the public believe. And therein sets up public expectations that are reasonable based upon the amount of funding "available" that local governments may not be able to use, hence the desire to broaden funding availability to address destroyed community needs.

The unincorporated community above Paradise has a recovery plan. It's not called a recovery plan but it represents the community's vision after Magalia lost 50% of its homes and a significant portion of its commercial district in the Camp Fire. My belief is any plan developed within 10 years of a major disaster is a recovery plan.

The Upper Ridge Community Plan focuses on what's possible in the commercial district following a rezone for expanded uses like mixed-use residential. To achieve the vision, the area will either need ample septic capacity which takes a number of parcels out of commission to serve as a leach field, or a community sewer system. We tried the community sewer system approach first since it opens the most doors for residential density and commercial viability.

In our scoping call with the State Water Board, they asked how many connections we had in the project area. Connections? The area is totally destroyed. So…none. But there's great potential for hundreds of connections that will prove most beneficial to the Ridge if constructed to the capacity of sewer rather than to the limitations of septic. We're talking restaurants and multi-family housing which means the highest density housing would fall on the main evacuation route which makes the most sense for life safety. Isn't that what those researchers had proven for Paradise?

Figure 4.1: Magalia Center Concept



The Water Board reps declined the project because without existing connections the project was not eligible for funding. Without connections we couldn't build sewer, but without sewer the ability to rebuild would be significantly constrained which may decrease or suppress community viability. Catch-22.

From here we got on our familiar merry-go-round. We asked them to adapt their funding criteria to our post-wildfire circumstances and we offered adaptations to each criterion. We

expressed our sincere disappointment in their decision and inflexibility, and took this experience on the road, laddering it all the way up to the Governor's office as an example of destroyed community disadvantage.

I didn't realize there was such a thing as an intact community until I worked in a destroyed one. Now that I know the difference, I see how it plays out in widening the equity divide between communities that experience disaster and those that don't. I want everyone else to see the distinction too, particularly as the risk of catastrophic disaster increases.

If we had scoped the community sewer project for disaster recovery funding it might have worked, but because we went the traditional funding route it did not. I believe we need to unlock traditional funding for destroyed communities, particularly when disaster recovery funds are complex, have finite expenditure periods, and set up long-term recovery projects to compete for one-time funds. If traditional funds are off the table and recovery funds are limited, the pathway to funding recovery is prohibitively narrow.

RURAL LIFE

It's no secret that homeowner's insurance in the State of California is becoming more inaccessible and unaffordable by the day. Big name companies are leaving the market, canceling renewals, or refusing to write new policies due to increasing wildfire losses and risk. Demand on the FAIR Plan has increased a thousand-fold as desperate homeowners rely on the state's insurance of last resort. Insurance affordability and availability is an inconvenience in urban areas where homeowners have fewer options, but a crisis in rural areas where homeowners have none.

Concurrently, AT&T has filed with the California Public Utilities Commission to be relieved from its obligation to serve as the Carrier of Last Resort (COLR). The COLR is required to maintain "Plain Old Telephone Service" for households and businesses across the state by request. AT&T argues that the cost of maintaining these legacy systems keeps them from modernizing their network. It is currently estimated that without a COLR, more than 580,000 households across the state would be without a telecom option; the estimated population impact in Butte County alone is over 37,000. Homes where landlines are the only option are often rural. Cell coverage is present and strongest in urban areas where the infrastructure meets market demands. Here again, we have a disproportionate rural impact.

In the foothills where a water conveyance system was destroyed by the Camp Fire, households dependent upon that steady stream for over a century found themselves without water. PG&E, owner of the conveyance system connected to an inactive hydropower facility, initially committed an investment to restore the system but later backed away citing higher than

expected permitting and construction costs. Potable water deliveries are the current work-around but not a permissible permanent solution according to State regulations.

Without water, without insurance, without a way to receive a call or call out, rural areas in California are feeling the pinch. As we watch these communities burn to the point of total loss, and we see how slowly recovery occurs if at all, with the bulk of subsidized housing going into urban areas, is rural life slowly disappearing and, in the case of fire, vanishing overnight for good?

INTACT COMMUNITY

Back to the conference in Tahoe, I listened to practitioners solving problems in intact communities using intact community amenities. They endeavored to increase middle market housing supply without starting at a 14% housing stock loss. They spoke of prescribed fire as a miracle cure without considering the presence of smoke on traumatized communities. They talked of building recreation systems through forested areas without contingency plans for wildfire. I envied their unknowing.

At the same time, I heard incredibly beautiful stories about land restoration and economic stewardship approaches that broadened my perspective. I related to the desire to invest resources back into rural communities rather than to export them as the only means for economic viability. I appreciated the definition of working lands as economic drivers, of prescribed fire practitioners putting their heads together to overcome the insurance challenge, of the energy around different approaches to forest management in other states.

But I was failing to see the applicability of their ideas in destroyed communities and felt like an outsider. An inclusive approach would be for groups to acknowledge that their work is wholly contained within intact communities and landscapes, and that destroyed communities and landscapes might need a different approach.

Privilege is a wall disaster recovery professionals hit in local conversations, too. Recently I was invited to a meeting on increasing market rate housing to meet workforce recruitment and retention demands in Chico. I've listened to local employers struggle with recruiting workers to fill jobs for many years. I know when housing is in short supply and trailing spouse jobs are not available, recruitment falters. These challenges are valid economic development concerns in intact communities, but not immediate disaster recovery concerns in destroyed communities. There are times when economic development goals far surpass what's possible during disaster recovery.

Economic development involves using a toolbox of market data, financial incentives, permit streamlining, government tax credits, political capital, relationships, development assistance, business assistance, and edging out competitors to build economic vitality. In my experience as an economic developer, I can be negotiating a power purchase agreement on behalf of a business one minute and advising a developer on how to relocate an owl nesting in a newly purchased factory the next. Economic development requires an on-call, all-hands approach.

Sample Eligibility Criteria

Intact Community	**Destroyed Community**
Existing Water Source & Supply	No/Damaged Water Source & Supply
Water/Wastewater Connections	No/>50% Water/Wastewater Connections
Roadway System	>50% Damaged/Destroyed Roadway System
Incremental Population Changes	>50% Population Changes
Housing Stock	>50% Housing Stock Loss
Existing Utilities	>50% Utility Damage
Business/Economic Activity	>50% Loss of Business/Economic Activity
Parks/Community Centers	>50% Community Space Loss

Placing sample criteria side by side makes it clear why destroyed communities cannot compete with intact communities for traditional funding, and why traditional economic development tools may not work. Relieving wildfire impacted communities from intact eligibility criteria if they experience two or more of the indicators above might open up new funding sources that could increase community viability. Federal funding exists for repair and reconstruction, but investing in resilience during recovery will take all available funding sources, particularly those meant to enhance and expand community amenities, infrastructure, economic activity, and housing. I recommend all funding sources consider adapting their eligibility criteria to suit intact and destroyed communities to broaden the bench for recovery and to increase equity across the populations living in both. Otherwise, the benefits of most funding are exclusively felt in communities where disaster is not.

BIG FIRE FAIL

When I first joined the County, I dove headlong into an economic developer certification process offered by the California Association for Local Economic Developers (CALED). I volunteered as an Ambassador for CALED in exchange for waived registration to the first course. I ate up the trainings even though my disaster lens got the better of me and I couldn't help but filter every scenario through my recovery perspective.

After two week-long certification courses conducted a year apart, I took the exam. Per the prompt, I prepared an economic development paper and slide deck demonstrating my knowledge and skills. I selected the real-life example of the Paradise regional sewer connection project I'd worked on in the Town that would significantly increase housing density and economic capacity after the Camp Fire.

In all real-life project documents, the sewer connection is described as the single most impactful "economic development project" in the Town's recovery. This one wastewater infrastructure project connecting 1,100 parcels currently reliant upon septic to a Sewer Service Area is recognized as the primary means for restoring and increasing economic vitality in the Town's downtown core and in primary commercial and mixed-use districts. Shifting parcels from septic to sewer allows for increased water usage onsite which reduces lot sizes for housing, creating greater density, and allows for higher water usage businesses to rebuild like restaurants.

In my exam I explained how the project is improving economic prospects for an entire community by measurably increasing housing, business capacity, population, and tax revenue. I explained how I as an economic developer would play a pivotal role of teasing out the economic benefits of this project and communicating them to the many local and State agencies involved in permitting and funding.

I felt confident describing the economic impact of this example because I'd once been responsible for setting up the joint Town-City meetings to develop the memorandum of understanding governing the project. The MOU outlined how increased capacity in the Chico Wastewater Pollution Control Plant due to the regional pipe from Paradise would also open up housing opportunities in Chico where many fire survivors had relocated, driving up demand. Win-win-win for Paradise, Chico, and the region in great need of housing as the driver for economic restoration and growth following disaster.

As soon as the Q&A portion of the exam started, however, I could hear the resistance – the examiners' inability to leap from an intact community mindset to a destroyed one. They failed my exam citing that while they understood we'd had a large fire, I had failed to demonstrate

my knowledge of economic development. My example didn't meet any of the standard techniques taught in the training sessions; it was simply a public works project.

In recovery plans, infrastructure is recognized as the single greatest necessity for the restoration of businesses and housing, which is why economic developers put their focus here before reconstruction can begin. In the Town of Paradise pre-fire, 95% of the jobs were local serving which means without population few jobs could be restored, without housing there could be no population, and without infrastructure there could be no housing.

Hence, economic recovery – which is economic development following disaster – starts with infrastructure. Well, let's be honest, economic recovery starts with response, then debris removal, then planning, then infrastructure. Economic developers are involved in all of these steps, analyzing the economic gains of each necessary step and aiding in prioritization to the extent possible. Take debris removal. If debris is not removed, reconstruction will not occur.

I'm not sure what upset me more about the failed exam, the examiners' dismissive tone toward my skills and experience, or their reference to the state's deadliest, most destructive fire to date as a "large fire." Both cut me to the core. What I read between the lines and later rebutted in a letter back to the examiners was what I perceived as privilege. Sure, this is not what an economic developer would do in an intact community with all the tools, eligibility, and amenities at hand. With a thriving business district and neighborhoods, an economic developer would not be developing an MOU between agencies for sewer flow exchanges. No, that economic developer would be pulling the financing tool out of their toolbox and using it on a single under-developed lot to entice a single project, creating a handful of jobs and a portion of a percentage point in sales tax revenue.

In their reply back to my rebuttal, they doubled-down, offering me mentoring so I could learn the real ropes of economic development and try again on the exam. They offered the support of an economic developer working in a middle-income suburb of the Bay Area who, to his credit, guided me to stick with what economic development looks like during recovery with the addition of a few key words.

I still feel haunted to this day by the exam experience, and rage over the irony of being shut out of my industry association during the hardest chapter of my career, when there's no book nor instructor to guide us after the worst has happened. Watching colleagues in other disciplines such as social services and community planning, I see their associations honoring the depth they can now bring to their conferences. In the case of CALED, the examiners were as unyielding with their comments the second time, but certified me by a tiny margin as they let me know in my "pass" letter.

I dropped my membership and unsubscribed after a few more email exchanges left me even colder. I kept the certification initials, "ACE," on the signature line of my email for a couple of months then deleted them as well. There's no pride in receiving the certification when the process was so painful. I thought playing by the rules and trying again might be a healing process for me, but it undercut the tenuous faith and trust I'd built in my newly required skill set. CALED didn't engage me in a relationship at that time, nor did they reach out to me personally to listen and understand despite my efforts to communicate. It's possible the emotional build-up on my side wasn't visible enough for them to respond; trauma can be difficult to spot in a professional email. They put my name in their newsletter when I passed as if the celebration was mutual.

What I took away from this experience is that the traditional definition of economic development assumes the presence of an intact community, period. It doesn't even factor in the risk of disaster when evaluating the tools for the job. Similarly, the agencies that fund economic development assume the underlying assets of an intact community are within arm's reach. A brownfield lot can be transformed into a complimentary use with site remediation, proper zoning, financial incentives, the right developer, and political will – which is a bit like disaster recovery within an intact community. What about when an entire community is a brownfield, filled with hazards and waste above and below ground following wildfire? Do we not consider reconstruction economic development?

In traditional economic development, there is no consideration of destroyed infrastructure at scale, the presence of fire debris and danger trees, a pending settlement determination holding up escrow, the un-insurability of the lot due to high fire severity risk modeling, and community-wide trauma and perception about change. In early recovery, we have to address these conditions before jumping into traditional economic development.

In a post-fire situation, I'd consider disaster recovery the precursor to economic development because it lays the foundation for economic recovery. And why not consider the two disciplines part of one long continuum? You have to start somewhere after fire and if you pull out what you learned in your economic development training as the smoke clears, you're in for a shock.

In the Town my title was Disaster Recovery Director. In the County my title is Deputy Administrative Officer – Economic & Community Development. The intent behind both is recovery. The realities of both require economic development. It pains me to think this way, but when more communities in California are destroyed, the traditional definition of economic development will expand to include the tools of disaster recovery, all the way down to evaluating the economic benefits of the sanitation pipes that make reconstruction possible. The Town may be the first community taking economic development subterranean following catastrophic wildfire, but they're certainly not the last.

People who have spent their entire careers in economic development may find themselves in disaster recovery roles overnight, not by choice but by circumstance. If they do, I hope they reach out to other communities grappling with the same challenges to learn from their successes and barriers – because that's the only way to alleviate the loneliness of losing a job to fire, and finding the one that replaces it is nothing like it used to be.

I spent two decades working in local, state, and global membership associations prior to entering the field of disaster recovery. The goal of professional associations is to find and share common ground for networking, education, and opportunity. I regret to think now that we acted exclusively, but maybe that's the nature of associations by design. Any organization that uses words like "joining" and "member" is assuming an in-group and an out-group. I spent my whole career in an in-group until I transitioned to the disaster recovery field where there is no group at all.

When I prepared my exam materials, I relived the fire and my state of mind during those early project days. I went back and researched the details so I could approximate the measurable economic value. When I presented my materials to the examiners, I was shaky and emotional like I am every single time I talk about the fire with a new group. I allowed the exam to take a toll on me because of how significant I thought the project was to share. The failure felt like a rejection of my hard-earned skillset and the personal price I pay for doing work of this kind.

One of my very good friends turned it around for me. She said consider the failure proof that you're doing something specialized, not mainstream. Be a unicorn.

TRAUMA-INFORMED APPROACH

Through this writing I've started to understand what my mother needed from her insurance agent when she wanted him to care about her losses. She needed a trauma-informed approach. This practice is used in many fields and I've come to appreciate its applicability to working with fire survivors and with myself.

"Trauma-Informed approach is a term used in different fields to describe an approach that acknowledges the presence of trauma symptoms and the role trauma may play in an individual's life. It is based on the assumption that an individual is more likely than not to have a history of trauma." (Buffalo Center for Social Research)

Taking a trauma-informed approach with fire survivors is meant to limit the amount of re-traumatization caused by reliving the events of the fire by talking about the consequences and hardships. It assumes they've lived through dangerous and/or heartbreaking circumstances and have experienced trauma as a result.

We made many calls during hazard tree removal enrollment. Sometimes we'd call several numbers before reaching a person because of how many times survivors had moved since the fire. When we finally had someone on the line we learned that we couldn't jump right into business without first hearing their fire story. If we had two minutes of business to discuss it was preceded by what happened to them on November 8th and during the fire's aftermath.

Sometimes the stories were frame by frame from the moment they learned something wasn't right, and sometimes that part of the story was brief followed by their husband's decline. Or, they talked about the health issues they've had since the fire, or how making decisions about the property drove a wedge between them and their adult children. The stories would last a minimum of an hour and well before I knew what a trauma-informed approach was, I knew the only way to get to business was through the trauma. Tree removal itself was re-traumatizing.

In disaster recovery, every phone call you make is about the fire. After a while I realized I couldn't absorb more than four stories a day before my own well-being faltered. Once I heard the fourth story I'd have to switch to another project or focus. The Town Manager graciously allowed me to hire what I called "Tree Advocates" to help with the phone calls because by the time I was hired we had thousands of households still unenrolled. The Tree Advocates were amazing ladies who seemed to have endless capacity for devastating stories. I'm not sure now if I found the work challenging because it was so re-traumatizing for me, or if I lack whatever special quality they had. The Tree Advocates were miracle workers.

I've observed a few other miracle workers during my time in recovery outside of the first responders. Support dogs who visit incident command centers comfort firefighters and personnel during times of stress. I had the opportunity to meet a few of these at the Dixie Incident Command Center and I've seen them at our County offices as well. They're not quite the miracle workers on the fire line, but they are cute and certainly lowered my blood pressure.

I believe the hazard tree removal program opened my eyes to the complications of both experiencing and recovering from a fire. For survivors, there was nothing in their lives that did not relate back to the Camp Fire in those early days, months, years. The disaster interrupted everything – jobs, homes, grocery stores, parks, friend's homes. Sometimes it wasn't the fire that broke them but its aftermath. This is how I came to know that fire is only one layer of destruction and hardship, the consequences such as health complications, legal troubles, family strain, hospitalizations and death, and that ongoing bewilderment and feeling of isolation from a world that is moving on is sometimes much, much harder on a person than escaping from the flames.

I've needed a trauma-informed approach myself over the years. I certainly needed it from CALED and I need it from my consultants who puzzle when I ask for the time and date stamp of their data. "Why does it matter when this household data was collected?" they ask as they fly me over Google Earth looking at pinpoints on the map, and I will have to explain that the entire area they're studying burned in 2018 or 2020 and the data they're using may not be accurate depending on when it was collected. There is a difference between the number of households in Butte County prior to and after our recent fires. If the data is from March of 2018, I'm not going to want to use it. If it's from January of 2020 and includes the communities impacted by the North Complex Fire it's not valid. Dates matter after disaster.

If there's still some confusion, because that's the hard shell of intact community blindness, I will pull up the fire footprint maps and I will show them. And if we're still not getting anywhere, I will share imagery of the post-fire apocalypse. To bring them current I will share photos of the recovery and rebuild and rattle off the number of building permits that have been issued and finaled.

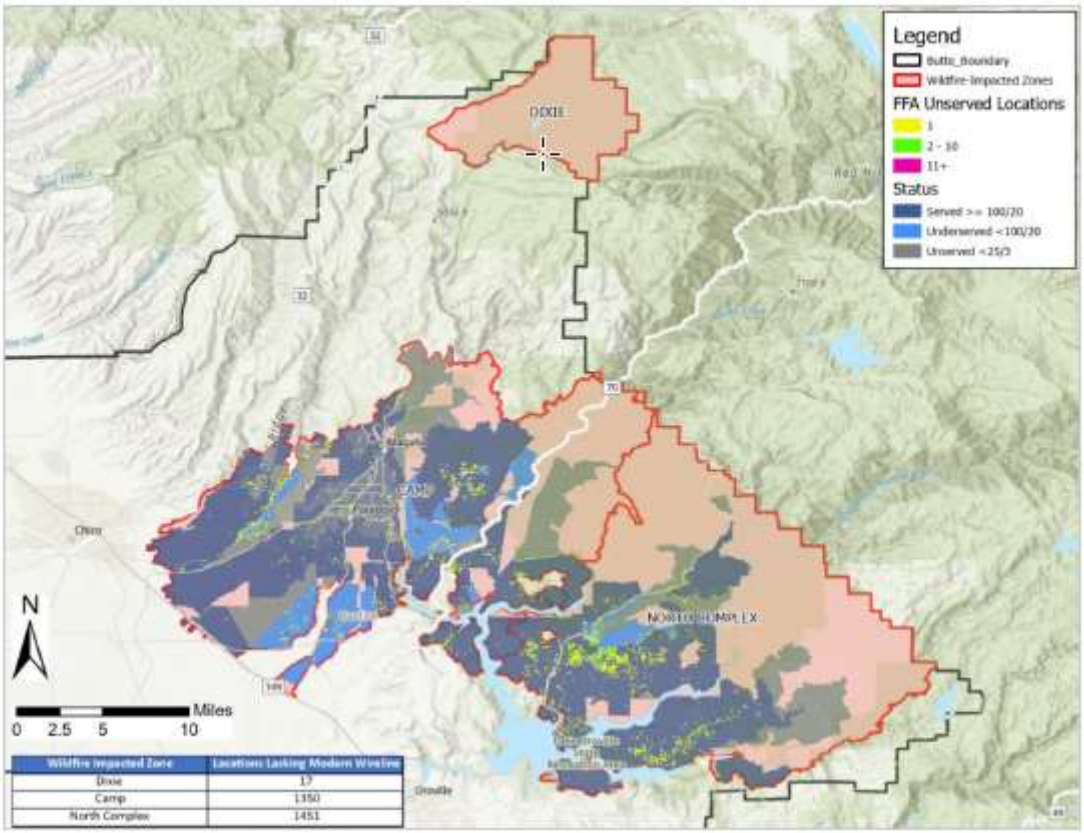
Sometimes the light will dawn and there will be a connection between what they've seen on the news and the reality of a community a few years into recovery. I will explain my theory that an intact community iterates 5% every 30 years, and that a destroyed community iterates 50% every 6 months. I will try to explain the rate of change when a community is whole, when it is destroyed, and while it begins to rebuild.

If we need to go deeper, I will talk about what happens to

schools, even those still standing, when houses go away and families move. I will share the basics, the obvious, the nearly impossible to comprehend. Sometimes we will get somewhere and I will see the light dawn. The consultant or team will pause and sit back. On one call the apology came quickly – which is never what I'm after but usually follows my 'Destroyed Community 101' lecture. Another called me in tears a few days later. Some consultants have left our calls and watched movies on the Camp Fire by their choice, never by my recommendation, and be changed. Destroyed community reality sets in.

For example, as we were finalizing our Broadband Playbook in early 2024, I had a feeling the unserved/underserved areas of our community are also the hardest hit by wildfires. I shared this hunch with our consultants and asked them to layer the Camp Fire, North Complex Fire, and Dixie Fire maps over the broadband service maps. To accomplish this, I provided publicly available shapefiles of our burn scars and they obtained the service maps from the State. Sure enough, the layered maps told a troubling story: the least served areas with broadband are also among the areas most recently hit by fire. For emergency communications planning it's essential to look at levels of service in high-risk areas, and consider traditional and alternative means for increasing options and redundancy.

Figure 1: Unserved and Underserved Areas within the Regions Most Impacted by the Butte Wildfires



I admit that on some calls with consultants I am fatigued by this extra effort and ask them to do their homework and brainstorm tools and solutions before calling me back. There is plenty of publicly available information on our fires that will orient them. And some of them do this. One called me back a week later and said he was pitching a change in the company's business model because he now understood destroyed communities need an entirely different approach.

I will never know where consultants take this information – they may forget immediately. My deep, perhaps idealistic hope is that they will handle communities in the same boat with greater care in the future. Though I don't say the words "trauma-informed approach" I hope they understand there's a better way to jump into a working relationship with a community in recovery.

Here are some considerations for working with disaster-impacted communities with a goal of reducing re-traumatization:

1. Determine if a major disaster has occurred in the jurisdiction within the last 10 years.
2. If yes, assume the presence of trauma and consider the following:
    a. Research common signs of trauma for situational awareness; do not discuss trauma with the client unless invited. It's possible the client did not experience the disaster, but the community-at-large did.
    b. Recognize every plan developed within 10 years of a major disaster will likely contain elements of recovery, regardless if it is called a recovery plan or not.
    c. Research all publicly available information on the disaster – media coverage, After Action Reports, data reports (DINS, etc.), online images, other credible sources. This research is meant to create consultant awareness so that the client does not have to re-experience the disaster in describing it.
    d. Date-stamp and time-stamp all data to give the client the opportunity to use the data in a pre-disaster and/or post-disaster context. Understand the timeframe of data the client is asking for, and that major swings in data may be present depending upon data collection timing.
    e. If the project requires mapping, request shape files of the fire footprint to show the client if the work performed or proposed occurs within the burn scar.
    f. Review the destroyed community criteria in this paper; if the community meets the criteria, do not assume the presence/avaibility of intact community resources and amenities, nor grant eligibility.
    g. Avoid disaster comparison in conversation with the client. It may be appropriate to relate to the client, but not to engage in comparison. No two disasters are the same.
    h. Acknowledge the consultant's "outsider" perspective, and ask if there are additional sensitivities to offer the community during outreach.

i. If the client and/or community offers their disaster story, take in the additional context and ask if/how the information should be included in the project. Recognize if the plan or project is for recovery, and the focus is on the disaster, many survivors begin by sharing their disaster story. In community outreach, make plenty of time for disaster stories, and prepare staff for any secondary trauma effects.
j. Consultants should take care of their own wellness and find resources to support working in, on, and around disaster.

My advice if you know a community has experienced disaster of any size is: do your homework to understand the magnitude and impacts, assume the presence of trauma particularly if you are working with survivors, and try your best not to re-traumatize.

LEGAL ACTION

I have learned that lawsuits follow fire. PG&E was found guilty of 84 counts of involuntary manslaughter. I happened to pass by the courthouse on the morning of the verdict where media vans were broadcasting by sunrise. To say a pall hung over the building is putting it lightly. The community was in mourning.

The Fire Victim Trust is the agency entrusted to make determinations and settle claims with fire survivors using bankruptcy proceeds from PG&E. Claims can be for economic and non-economic damages and can account for lost wages, business losses, personal injury, emotional distress, and death. A local business called me recently saying they are trying to reopen 5 years after the fire and are still negotiating their settlement determination which is insufficient to rebuild.

Settlements trickle out in percentage payments years after disaster with sizable chunks removed for attorney fees. What's left is taxable though legislators are working to exempt disaster settlement payments from State and federal tax requirements. Lump sums would accelerate recovery but that's not how it works.

For this fellowship I interviewed two Town staff members, one in recovery and one in housing. Both were on the team when I worked at the Town and I have deep admiration for their fortitude. I asked them what data they use to determine if their housing urgency ordinance should be extended. The County was grappling with this question when I submitted it to Stanford thinking research around data and evidence could help. In the case of the Town's urgency ordinance, as it turns out, local data may not matter which goes to show that policies related to the same fire in two different jurisdictions may need different approaches. Recovery ordinances are not one-size-fits-all when circumstances differ across the fire footprint.

After the fire, the Town, like the County, approved a series of urgency ordinances to allow for out-of-the-ordinary temporary uses of land to address urgent needs, health and safety risks, and uncommon circumstances. The County consolidated its urgency ordinances for the unincorporated area into Chapter 53 for the Camp Fire and Chapter 54 for the North Complex Fire.

As I write this, Chapter 54 has been extended until mid-2024; Chapter 53 expired on December 31, 2023. These chapters allow, among other things, for property owners to live on their lots in temporary housing without active building permits. Under ordinary code, a property owner must have an active building permit to live in an RV on their property. The idea behind the urgency ordinance is to conditionally permit RVs as temporary housing on burned lots during the time it takes a property owner to plan, finance, permit, and execute a rebuild. In the County, the urgency ordinance following the Camp Fire was extended a few times for a total of just over 5 years.

The Town Council, like the County Board of Supervisors, reviews and discusses the need for each urgency ordinance as it approaches expiration. The Town has extended their urgency ordinance several times in 6-month to 1-year increments, as has the County.

Interestingly within a few months of the fire the City of Chico set an expiration date for their RV allowance well after the 5-year mark and haven't reviewed it again. I suspect the fears of inhibiting or stalling recovery in intact communities are different than they are in destroyed communities. Whereas a destroyed community may worry that extending temporary housing may stall its return to intactness, the City of Chico did not appear to fear the loss of its intact status by allowing RVs to park in front yards and on construction sites with the right permits. The City addressed the housing crisis they did not cause, and met needs they otherwise couldn't meet with existing housing stock, by allowing temporary units to fit within built-out neighborhoods for an extended period of time.

Town and County concerns are different than the City of Chico's. From my observation, the balancing act is permitting temporary uses that allow people to transition to recovery while not prolonging destroyed community living conditions. In some cases, RVs are in compliance with the regulations and are properly permitted with conditional use permits that certify the presence of hook-ups to electrical, water, and wastewater systems. In other cases, RVs are not permitted and may be leaking raw sewage onto the ground and into neighboring lots, or may be powered by unpermitted electrical lines.

RVs on private land are occupied by property owners, renters, and people without explicit permission. Some renters bought vacant properties after the fire hoping to build but found the process far too expensive and remain in RVs. Today, it's not uncommon for large lots to have

more than 1 permitted or unpermitted RV parked onsite. I'll never forget one particular work day in the Town when a grass fire was reported caused by an equipment spark and minutes later a report came in that an RV was in flames. On one lot inspection, a bucket was found inside an outhouse made of plywood.

Preparing for each round of urgency ordinance decisions, Town staff prepare an analysis of temporary housing by quantifying the number of conditional use permits issued for RVs, building permits applied for and issued for single-family and multi-family housing, and relevant code enforcement cases related to unpermitted RVs and other health and safety violations. Town staff monitor living conditions closely, making regular contact with unpermitted RV dwellers to understand each and every barrier to reconstruction and/or to encourage permanent housing programs and options. Even with similar outreach in the County, a handful of residents recently said at a Board meeting that they will never be vacating their RVs because rebuilding is prohibitively expensive.

As Town staff shared with me, prior to presenting this data to their Council for the latest round of extension discussions, HCD said on a routine program call that if the Town allowed their urgency ordinance to expire, the State might take legal action to recapture their disaster recovery funding (CDBG-DR). The warning didn't just include funding for housing but for infrastructure, facilities, planning, public services, and mitigation, for a total of over $200M.

As precedent, Town staff explained, HCD described lawsuits against jurisdictions across the country citing violations of the Federal Fair Housing Act. The Town Attorney found the warning credible and advised the Town Council to extend their urgency ordinance which they did.

Jurisdictions must comply with federal regulations per their funding agreements. It is an obligation we take very seriously. However, I was surprised to learn that this is how the message was conveyed to the Town. I had a general sense of the data the Town used for these discussions which I'd been involved in a few years before, and knew the work several departments put into gathering and analyzing that data for presentation to the Council. The Town does not make these – nor any – recovery decisions lightly.

Delivery aside, the timing of the warning appears to have coincided with HCD winding down the owner-occupied reconstruction program in the Camp Fire burn scar which offered forgivable loans to qualifying households for reconstruction in the Town and unincorporated areas.

Expiration of the Town's urgency ordinance would likely affect some of the property owners HCD's program-of-last-resort had failed to assist for any number of reasons: eligibility, trust, delays. It appears HCD hinted that the Town should bear responsibility for this lack of programmatic success, risking funding that was supporting the entire community's recovery. Town staff told me they'd planned to recommend renewing the urgency ordinance anyway.

Revealing a breach in trust during an already challenging recovery process stems from a lack of coordination and communication between levels of government assisting local governments with recovery. Urgency ordinance deadlines are public information, and can be tracked by the State and local government while grants are underway. Any concern about expiration should be discussed well in advance and handled with enough time for the jurisdiction and State to determine any possible violations, so the right information can be provided at the time an extension is considered by elected officials. This coordination goes well beyond collecting data to understand needs and impacts before informing policy decisions.

In the Town's case, whether the comment was made casually or with real intent, it lacks a spirit of partnership between agencies meeting at least monthly on program status. There's no reason information pertaining to federal compliance should be withheld or delivered without context or appropriate time to react. Certainly, if a violation looks imminent, the local jurisdiction should be notified by any means possible, but a coordinated system for recovery – versus regular check-ins on various programs – would catch such pitfalls without imposing the terror of losing critical recovery funding.

To HCD's credit, several of their programs operate with a growth mindset, and representatives listen to Town and County staff with a sincere desire to learn about rural roadblocks and incorporate adjustments to overcome them. They encourage us to give them our "magic wand" solutions to the challenges our agencies face in recovery, so they may anticipate and adapt their programs to local needs going forward.

PRISM EFFECT

Last week my boss and I exchanged words describing the ways in which disaster recovery has opened our eyes. I used the word 'disillusionment' to describe my experience. I believe what has broken my spirit more than witnessing catastrophe is realizing "the system" where adults in agencies "work together" to ensure "the right thing" happens for humanity is not a system at all. There is no invisible construct ensuring cooperation and trust. This is not to say there are not incredibly wonderful people doing their best in all levels of government because there certainly are, but the sum of those agencies does not always equal the sum of their people.

My disillusionment says more about me than the world around me, though. I'm not sure where my trust came from, perhaps I've never been hurt by agencies behaving badly. If that's the case, that's my privilege coming face to face with real world realities. Expecting an agency made up of thousands of individuals to be perfect is ludicrous when expecting even one human to be perfect is unreasonable. I don't expect perfection, but I do expect something closer to the right thing.

I have come to see public perception as a composite of a million tiny details that can't be known or changed by one person, one agency, or combination thereof. This is unsettling for someone who loves a bit of control and predictability. Working at the County has taught me not to come to conclusions too quickly or at all. I hear a brief report-out in a meeting and think I know the angle and end-result. Turns out, as soon as the situation is described in more detail eighteen other dimensions appear that I hadn't considered or foreseen.

I call this the prism effect of government. Light doesn't just pass through glass to illuminate the other side, it hits a prism and fractures into a billion colored rays bouncing off of every 3-D surface in every imaginable direction. I try to remind myself of the prism effect when I get too close to the "truths" my disillusionment speaks.

As incensed as I can get with what I learn throughout disaster recovery, I remember the prism effect. As much as I want to understand every angle of the prism, I know the pursuit of that will leave me with no time for anything else. And even if I had the time, the whole truth is unknowable because light travels faster than the eye can move and certainly reaches far beyond what the eye can see.

GOVERNMENT CONTINUITY

A few months ago in a staff meeting, I was inspired to draw a picture on a white board in our conference room. We'd just welcomed a new member to the team and I wanted to share County government as I see it.

I drew a big box at the top and labeled it universe. Below it a smaller box labeled galaxy. Below that a row of small boxes labeled solar systems. Then, directly below those solar systems, planets. I explained that the Board of Supervisors sits in the universe box privy to all there is.

Our Chief Administrative Officer sits in a galaxy just below the Board with a view of the universe and the solar systems below. In the solar systems are deputies and liaisons who connect the Administration Department to the many other departments (planets) within the County: Auditor-Controller, Clerk Recorder, Treasurer-Tax Collector, Sheriff's Office, Butte Fire Department, District Attorney, Assessor, and so on. Those planets are operated by the County's amazing elected and appointed Department Heads and staff.

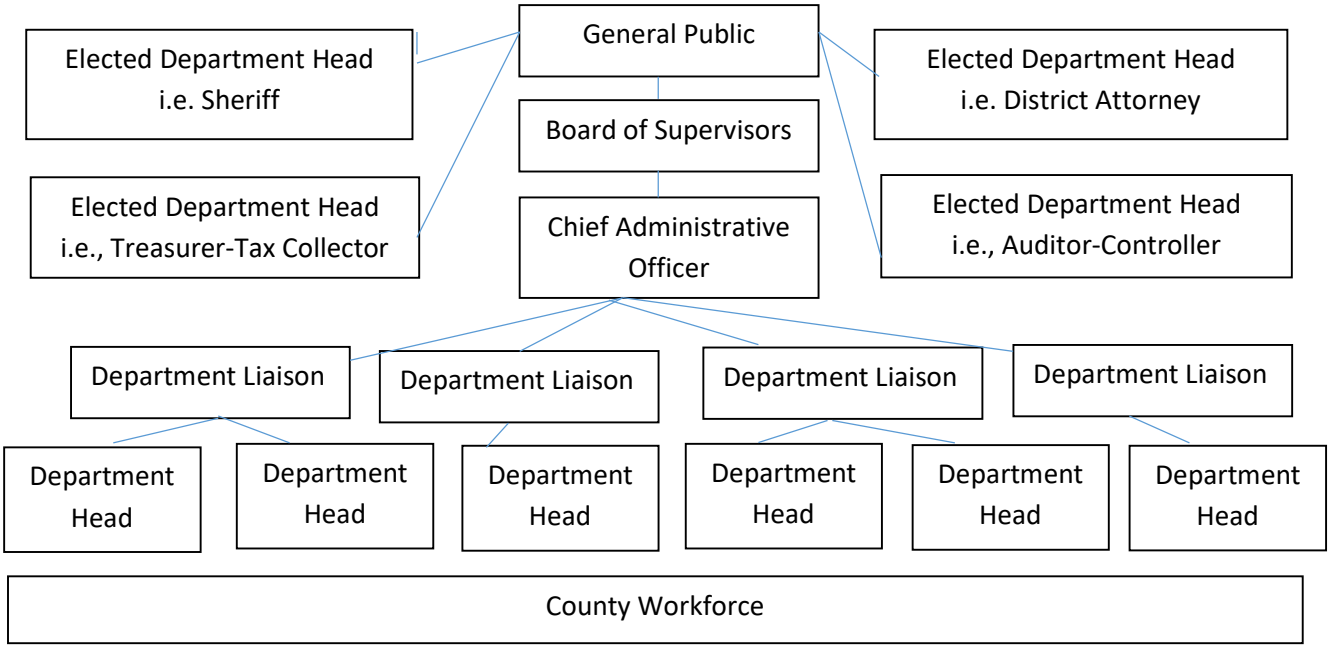
I explained that a planet represents a whole world, just like the earth – an entire and complete ecosystem. It can feel like everything there is to know, be, and do is right there on that planet. But one only has to look out into the night sky to see the broader solar system, the galaxies beyond that, and our great universe to know the planet is but one tiny object in a sea of infinity.

I believe great leadership comes from knowing and compensating for weaknesses better than mastering strengths. Similarly, I believe success in local government comes not from understanding an individual planet but the relation of that planet to all others.

Local government is the space between each planet, the gravitational pull holding them in place: the continuity of operations after disaster, the constant coordination between departments to comply with regulations, the suspense of judgement in deference to the prism effect. Local government is the container for the widest variety of skills and purpose, meeting vast community needs.

At the end of the whiteboard meeting, one long-time County employee jumped up and drew a rocket ship heading straight for a planet. That's Cal OES coming for Emergency Management, she said. Even when that rocket ship hits the planet and staff spends days reeling from the shock, the planet's orbit does not change because it's held in place by everything else. Gravity keeps the planets rotating around each other in neat, orderly lines, the sun illuminates its corner of the solar system, and the universe carries on.

General County Government Structure



The Oroville Dam Spillway Incident hit the County. The Camp Fire hit the County. The North Complex hit the County. The pandemic hit the County. Who knows what's coming next? And still the County functions.

INDUSTRY IN DESIGN

With 90% of the annual disaster impacts in the nation coming from flood historically, it's fair to say the Federal Emergency Management Agency knows flood better than fire. FEMA pushes timelines suited for flood by rushing wildfire response and recovery. Recently, Cal OES interviewed our development services staff about the feasibility of ending funding for additional building and planning staff 180 days after disaster.

We explained we are five years out and still staffed well beyond pre-fire days because it takes many years for insurance and settlement claims to be determined and paid out before individuals know what resources they have to rebuild. Six months after fire, the burn scar is still ashen and fires burning inside tree trunks have just gone out. My parents' home did not burn but they were unable to move back in until well after the 4-month mark post-Camp Fire due to restricted access to the burn scar and structural remediation. Five years out and they have just begun to rebuild their garage.

I understand from early talks with Cal OES that flood recovery can occur more quickly because response is a well-oiled machine and the destruction is different. It is feasible to imagine temporary housing units moving in within a few weeks of the disaster and homes under construction a few months after that. To think permits for more than 13,000 single family homes in remote disadvantaged communities could be pulled within 6 months of fire is incomprehensible.

FEMA housing trailers for fire survivors did not arrive in our community for more than a year after the fire, and because they were not WUI compliant they had to be placed in valley communities rather than on survivors' properties. A number of times I worked with staff to build cases for time extensions on the FEMA trailer program and we were successful. How can a displaced person plan for reconstruction when they are couch surfing, living in an RV, out of state with a relative, or on the streets for more than a year? The math doesn't add up.

During hazardous tree removal, the federal government put enormous pressure on the State and local governments to speed things up. When the State finally released the RFP for the program and selected contractors there were numerous protests and the solicitation had to be flown again. When the contracts were finally signed there were immediate change order requests. The first tree was felled around the 2nd anniversary of the Camp Fire. Hundreds of people gathered around in the rain to watch. To expect a community to rebuild within six months of a fire when eligible hazardous trees are not felled for another year and a half…again, incomprehensible.

I interviewed Cal OES employees for this fellowship. They called wildfire recovery an “industry in design,” and helped me see where the differences between fire recovery and flood recovery stem from. Take the many volunteer groups who arrive in the aftermath of flood to rebuild housing. They are in need of their own housing which is often accommodated in churches and other intact spaces where sewage capacity is not an issue. We tried this in the Town of Paradise in early recovery and churches still standing did not have the septic capacity for any habitation at scale. In the wildland urban interface post-fire, complying with building code regulations for workforce housing is far more complex.

Cal OES explained that the increased frequency and scale of major disasters is unprecedented. They attributed a lot of the downstream complexity in implementing recovery programs to the federal level. Specialized knowledge is needed locally to know how to tap into federal funding. I would say to know how to tap into federal funding without creating new risk. They acknowledged that a lot of recovery resources go underutilized for this reason. There are efforts to create navigators to assist but the complexity and siloed nature of response creates challenges when those funds are sent down to the local level where recovery occurs.

The fastest housing recovery is typically built by individual property owners who were adequately insured. Cal OES explained adequate insurance is the single most important condition for a timely rebuild. As insurance becomes more expensive and harder to access, that becomes a more pressing and complicated challenge for recovery.

In floods, homeowners are often dealing with 1-4 feet of flooding and most of the losses are damages that can be repaired. Homeowners may not have flood insurance because it is not packaged in their policies. FEMA calculates unmet needs by identifying the gap between the needs and what insurance can provide. The greater the gap the more funding is allocated which is why flood recovery is often better funded.

By contrast, the per unit replacement cost in wildfire is much higher by a multiplier of $134,000. A higher percentage of people have fire insurance because it is attached to their homeowner’s insurance policy. If their insurance is considered sufficient, they are eliminated from accessing recovery funding.

The presence of insurance in the case of wildfire explains why long-term recovery allocations are so small relative to unmet needs. Cal OES explained, “insurability is the invisible hand,” driving housing recovery because of how unmet need allocations are determined.

If flood recovery is more efficient, generally, and better resourced, can we assume flood-impacted communities recover faster and more fully than wildfire-impacted communities? It seems we won't know the answer until the industry is fully designed, which likely means we have generations of wildfire recovery trial and error in front of us.

RECOVERING IN REVERSE

A mortgage lender agreed to speak with me for the fellowship. I wanted to understand her experience interacting with clients who could and could not financially afford to rebuild – the motivations, the decision making, and the consequences of each. What she explained is basic but it took me a few rounds to understand.

Right after the fire her office was filled with clients ready to do whatever it took. They needed numbers and she had numbers. A local architect told me the Camp Fire had only been burning for one day when he was retained to draft house plans. On day two of the fire my stepdad was shaving in a mall parking lot in Sacramento.

The lender admitted to doing hard things like talking people out of rebuilding or buying too soon, before they had proper resolution on their insurance claims and while the market was still inflated from the housing stock loss. She helped them understand their risk, the market, the consequences of all options in front of them. Many clients went forward with or without her support. They invested every penny they could scrape together to buy or build a home that wasn't worth the value of their money. She explained banks loan on value even though the cost of construction is relatively the same everywhere, and that people who are rebuilding even now have to post more cash reserves to build their homes in Paradise because the values don't support the financing.

For those who bought down the hill in Chico, she described it like this:

“Disaster occurred, we had significant housing stock loss which inflated housing prices, people bought out of desperation then wouldn’t see that value come back out. They were immediately upside down.”

She described people who gave their whole life savings to contractors who poured their foundations then left the area with the rest of their cash. This was not a one-off situation, she referenced three cases with three different contractors. When I arrived to work at the Town, I was naively unprepared for criminal activity during recovery. The Contractors State License Board still routinely visits our area to check licenses and make arrests.

The lender also explained that the rising cost of insurance reduces buying power. Having to set aside funds to cover the high cost of monthly insurance payments cuts down on the affordability of a mortgage payment.

I also spoke to disaster case managers about housing recovery for the fellowship. Disaster case managers work with individual fire survivors to identify unmet needs and match them with available resources. Their work is paid for by non-governmental organizations funded by FEMA and charitable funds. Individual recovery is non-linear and it is often one step forward and two steps back even with case management.

I asked the disaster case manager to send me examples of typical cases, changing any identifying information:

1. One client has been in disaster case management on and off since the fire occurred. They received money from the fire victims’ trust but became their own barrier by pushing each case manager away. Previous case notes signified that this client was rude or difficult to work with so each agency continued to drop them. Once in case management with NVCSS, the case manager recognized that this client had been deeply affected by the fire and was experiencing the effects of severe trauma. This has been the biggest factor in the home not being rebuilt. The client has been in case management with us for over a year and has passed on multiple housing opportunities because they cannot believe that anything good could happen after something like that. They finally are moving in the right direction and have made appointments with a contractor after a year of tough work and patience.

2. A Couple resided in a garage prior to the Camp Fire, in hopes to reconstruct and renovate a house. However, when the fire struck, they found themselves displaced for a lengthy period of time. Upon receiving some assistance from FEMA, they acquired a run-down travel trailer and placed it on their property. During this time, their sole income

was from Social Security, with the spouse battling for disability benefits. Faced with financial strain, they reluctantly sought assistance, borrowing money from relatives and friends to cover their daily expenses. As settlement funds from PG&E trust began to trickle in, they prioritized repaying their debts to those who has helped them initially. Despite being under case management for several years, they remain without a viable housing solution. Their application for a Cal Home County loan was rejected due to their pre-fire living situation being a garage rather than a house, rendering them ineligible for the Recover Ca assistance program. Their attempts to secure rental apartments in Paradise and Chico were denied by inadequate credit scores and income below the required threshold. Additionally, their ownership of multiple cats and dogs are also challenged as many housing options do not accommodate multiple pets. Financial constraints prevent them from utilizing local options such as the rental assistance program in Paradise, and the first-time home buyer's loan. Costs for permits, and pre-permitting steps are also a financial strain on the couple as well. They continue to collaborate closely with case management and disaster services in the hopes of a recovery plan in the future.

3. A client who was a previous renter, purchased property after the fire. They have been living in a trailer on the property for a few years now, in hopes to build a house. They took it upon themselves to tackle all pre-permitting steps on their own such as getting the property surveyed, a septic system installed, a brand-new leach field, and water and power hooked up. They used the majority of their settlement funds on the property. They joined case management after they completed these steps in hopes that we could assist with their rebuild. Due to lack of funds, other options have been presented to them such as moving into a local trailer park for cheaper affordable housing. We have seen many pre-fire renters who have purchased property after the fire in similar situations. They used all settlement funds on the property, and do not have any funds to put towards a full rebuild.

4. A client that was visited by code enforcement was in need of help with recovery and placed on a caseload. He was an owner pre-fire and lived alone. He is limited on income as he receives SSD benefits. Since the beginning of case management, he began having trouble with trusting in our program with his important information. Once trust was formed and goal planning was established a second obstacle came up when applying for the CalHome loan through the Town of Paradise, he was not willing to give the town his information as they asked for various documents and made moving forward difficult. He realized that these programs are legitimate and critical for survivors who need assistance with rebuilding and has decided to move forward with applying. His

application and numbers look promising and it was determined that he will be approved for a loan that will help him get back into a home on his property. Disaster Case Management continues to support him in hopes that he will keep moving forward.

5. A client is a homeowner, who paid for some of the pre-permitting steps after the fire. The client has been living in a travel trailer since the fire. In hopes to rebuild, other financial strains began to take place. The client lost his job, and is currently going through a divorce. He has used his settlement funds on day to day living. At this time, he is struggling to find work, and unfortunately, does not have the funds and income to rebuild or become accepted into an apartment at this time. He is working with Case management in obtaining income as a first step. The next step would be to pay off bills which he is behind on, so that we can sustain income and come up with a long-term recovery plan.

The disaster case manager explained that while they are dealing with the hardest cases five years after the Camp Fire, they do have successes. The month prior to the interview they'd secured over $46,000 for unmet needs, closing the gap on a client's rebuild. She explained:

"The funding will assist the client and his family in completing their rebuild. The clients have been working on rebuilding their home since October 2019, while living in travel trailers on their property. These funds will assist with drywall, insulation, flooring and remaining finish items for their home to be habitable. They will finally be able to move forward and recover as a family and are so grateful for the assistance to do so."

INVISIBLE DISASTER

There comes a point after wildfire that the telltale signs of disaster start to disappear. On long drives through Northern California, I can spot burn scars that are ten years old on the hillsides, but visible fire impacts on communities become less evident a few years after the hard work begins. When I first arrived to work in the Town every vacant business lot dripped with melted signs, burned cars sat in driveways, the pavement was scabbed and scarred. Dead and dying trees were everywhere, standing, shattered, half mast, leaning, one day up and the next day down. Evidence of fire was all one could see.

In May of 2023 I was helping with a tour of the recovery. We drove a bus full of Supervisors from rural counties across the state through the Town and up into the unincorporated community of Magalia. As we drove, we described recovery projects, housing reconstruction, tree removal and defensible space requirements, undergrounding and repaving, multi-family housing development, and resilience efforts.

When we arrived in Magalia an association staffer from the central valley jumped out of the bus with eyes aglow and said, “if you hadn’t told me there was a fire there, I never would have known!” It was the first time since the Camp Fire I’d heard the disaster described as invisible and I had mixed feelings. I certainly don’t want people to be exposed to the devastation, but her comment almost wiped away what we’d gone through. I’m sure she didn’t mean to offend – rather I think she meant to compliment the recovery work – but it was a moment when assuming the presence of trauma would have helped.

A few minutes later I was talking to a Supervisor from Mendocino County where the Mendocino Complex occurred just before the Camp Fire in 2018. The Supervisor engaged me in conversation then got very quiet. As tears swam down his face, he said he understood so deeply what we’d gone through as he’d gone through it himself. He shook his head and looked beyond me quite a few times, almost seeing into his own past. He commented on the trees and the roads, and the many years he knew we had ahead of us. He suggested we reach out to his Emergency Manager to exchange tips, then he rejoined his peers.

I felt so seen in that moment, even with the disaster invisible to others around us, he led with his trauma and it was a bridge for mine to cross. It’s typical to move from one person celebrating to the next person crying. I’d say for survivors that emotional swing is common, too.

My children’s eyes are attuned to the landscape of fire now as well. My oldest will see a fog bank over the coast and remark how relieved she is it isn’t a smoke plume. We will see agricultural burns on drives to and from Sacramento and have to talk about the color and size of each one, especially when it’s windy. Prescribed burns in the foothills set off emotional alarm bells even if we know they’re coming. Just this week a 250-acre controlled burn in the foothills sent brown plumes into the sky.

My kids look at forests differently than I did while growing up. I loved the quiet security of a dense forest. For them, if there’s no visibility through the trees, they know a forest is overgrown and the risk of fire is greater. When my oldest was 9, she told a man in a bagel shop who’d just commented on the rain, “yeah we need rain, but if the snow pack isn’t deep enough then we haven’t gotten enough precipitation to make a dent in the drought.” She was tuned into the land far more than I was at that age.

Kids in our community are growing up in an age of Red Flag Warnings and Watches. They know wind, heat, and the dryness of nearby fuel will lead to Warnings and Watches. As the former Town Manager in Paradise warned me, we will never look at hot, windy fall days the same way again. We will never rest when there’s an unaccounted-for smoke plume in the distance.

I remember practicing earthquake drills in grade school while growing up in the Bay Area. In Chico, our schools run Code Yellow and Code Red drills that cover a myriad of threats far scarier

than an earthquake. Our kids are already on edge, and the fear of fire pushes them closer to the edge with each hot, windy day.

OPPORTUNITY COST

It is common sense that jobs are lost as a result of disaster, but it's perhaps less expected for job loss to occur a result of recovery. Hazardous tree removal projects following catastrophic wildfire require contractors to work at a massive scale. They also require federal contracting and labor standards compliance capabilities. Because of this, locally owned and operated tree companies and wood processors are less competitive against national companies with federal contracting experience that can expand and contract their labor force.

Sometimes local companies are subcontracted to provide specific or smaller components of the large-scale recovery projects. In many cases, local operators fall prey to the recovery workforce shuffle as their workers join the "big guys" coming in for the government-funded projects. Larger companies can often offer salary and benefit packages – and training – that may exceed local opportunities. Working for a large company pre-fire may have been less attainable for the local workforce given distance to work sites, but when those work sites are local the jobs are far more accessible and attractive.

In the hazard tree removal program, contractors were required to identify an available end use facility for the waste wood when they bid on the jobs. There are only a handful of facilities in the state of California where waste wood can be taken for disposal. The large companies had to procure capacity at these sites to be eligible as a bidder on the government-funded projects. The end-use facilities would then hold capacity for the large operators, shutting out local companies entirely or forcing them to transport their waste wood greater distances at a greater

cost to the business. When waste wood flooded the market due to these fire-related projects, its value dropped to nothing. I heard of a number of local businesses unable to make ends meet during recovery.

We are accustomed to log trucks and chip/slash trucks leaving our county in droves. The logs might be charred or green depending on the reason for removal. In any case, they're being transported to a facility where any merchantable wood will be sorted and sold and the rest will be processed and disposed of. On my commute in the morning this winter the logs were caked in snow, the trucks dropping chunky snowballs shattering on the side of the highway.

Early in my recovery work I was proud of these trucks leaving our community. It felt like a sign of recovery seeing the dead and dying trees on their way out. But over time as I've learned the potential value of woody biomass, I have come to see this wood as a possible fuel source for renewable energy, and seeing it trucked out feels like watching opportunity drive away.

If fire decimates a community, and recovery projects like tree removal requiring imported labor transport semi-valuable material out of town for sale and/or processing, then there is surely an opportunity cost to recovery. I told a bio-oil manufacturer recently that if the feedstock is here, the jobs should be as well.

In many communities rich in natural resources, the economy is dependent upon the export of those resources – lumber, water, rock, coal. The economic stewardship model inverts this paradigm and suggests natural resources should be reinvested locally to create economic stability and growth. This is my vision for disaster recovery as well.

For debris removal, we had no choice but to truck excess fire debris out of town that couldn't fit in the local landfill. Given the volume of fire debris the local landfill did take, valuable "air

space" was lost which is the space above the ground in which trash piles can grow. Decreasing the air space accelerated the reduction in capacity and lifespan of the landfill. So, there is a point at which not all fire remnants can be kept locally.

But trees might be a valuable component to economic recovery if removed responsibly, brought to a processing facility, and turned into lumber to rebuild homes or feedstock. I understand this approach is happening in wildfire recovery where existing infrastructure supports community-scale lumber milling, for example.

If we prepare for recovery to involve the very material we are removing, then perhaps communities can retain and grow jobs after fire. Ideally, we could create a closed loop of forest management + local sorting + local processing = renewable energy sold on the open market or added to the local grid to control utility stability and pricing. This sounds far preferable to losing everything to fire then losing more to recovery, thereby reducing overall economic viability which slows the pace and scale of recovery.

BOOMERANG EFFECT

It is commonly accepted that disaster creates population displacement. Chico State studied postal code data to show population dispersal across the United States one year after the Camp Fire. If they'd checked in on that data a year later the map would've looked significantly different, and each year thereafter for what we now know about frequent fire-driven relocations.

I've come to think of frequent fire relocations as the heartbreaking boomerang effect. People move out of state after their homes are destroyed, then they're back within a few months or years. Or they move to a larger city in California and make their way back to the small-town life they miss, even if only a shred of that life is still there – it is enough. This certainly isn't the case for all fire survivors but it's not uncommon that people leave to find what they're missing only to realize home is not so easily found.

After the Camp Fire I noticed many of my friends with kids who'd lost their homes relocated quickly. Local schools were closed for months, even schools outside of the burn scars for air quality reasons. When local schools re-opened some classes were held in closed department stores and airport hangars.

At my youngest daughter's 6th grade Open House a few months ago, her English teacher broke down in tears recounting her time teaching in an aisle at ACE Hardware after the Camp Fire. She described the curtains hung to create a sense of place for the students. Her face was anguished as she talked about the difficulty and the misery of that, then she ended with how

much gratitude she has now for her classroom. I cried for her and for the kids who experienced prolonged displacement after such a traumatic event.

Rebuilding frustrations are also a reason for the boomerang effect. Cobbling together financial assistance, navigating the permitting process, hiring then firing then hiring a contractor, experiencing labor and material delays, any hitch in this path for someone who never intended to build a home if it weren't for losing one can tip the scales toward too much. A friend of ours got fed up with the process and expense of rebuilding and moved his family out of state. Immediately his kids began to suffer and what they'd intended to be a fresh start turned sour. They returned after six months, re-enrolled their kids, and are still working through their reconstruction now.

RESEARCH SUBJECT 1

In October of 2020 while I was working at the Town as Disaster Recovery Director, an Electro-myocardiogram (EMG) and blood test confirmed I have a genetic, degenerative neuromuscular disease. The disease runs in my dad's family and is present in every generation. Two days after my dad died, I was rear-ended and spent the next four years looking for relief from sciatica and describing stroke-like symptoms, nerve pain, and muscle weakness to local doctors. Finally, a neurosurgical nurse in Sacramento said, "that doesn't sound right," and referred me to the physical medicine clinic at UC Davis.

The EMG took place in a sunny three-story brick building in Sacramento off the main hospital campus. It was supposed to confirm the presence of some sort of nerve issue causing the sciatic pain but after testing everything on my left side the doctor casually moved to my right side and began testing again. "Does anyone in your family have a neuromuscular disease?" she asked casually. I said no and on we went.

At one point she asked if I was cold – always – and wrapped me in a thick hospital blanket out of a warmer in the exam room. Once I warmed up, she taped electrodes to my skin, took some measurements, and pulsed my skin with a round metal probe transmitting electrical currents. My feet and hands jumped off the table each time. It was painful but endurable. Over the years I've come to call EMGs the lightning test because of the zapping.

Casually the doctor asked me again if I had any presence of neuromuscular disease in my family. Nope, I said and on we went. She seemed surprised I was a runner though I told her that was becoming harder as I got older and I was transitioning to walking. She moved over my body with a large fork-like tine that shook when she flicked it while I reported if I could feel vibration in my hands and feet.

Almost two hours of tests later, and her puzzlement at the results, she asked me one more time about family disease. “No,” I said, “although I do have an uncle with a floppy foot disease,” referring to my dad’s half-brother who I didn’t know very well. That’s when she sat down and told me about CMT. If I hadn’t been a runner my whole adult life, she said, I wouldn’t be able to run now. My nerves were unraveling and I was losing my muscle.

An MRI showed glowing along my spinal cord indicating distress where my peripheral nervous system connects up with my central nervous system. The signals from my nerves to my muscles are slowing and will eventually stop due to an unspooling myelin sheath. Without communication from my nerves to my muscles, my muscles will gradually cease to receive messages to move and they will break down. CMT does not impact cognitive function nor shorten life span, but there’s no cure.

My doctor said her lab was working on setting up a clinical trial and I’d be a candidate. I said I was interested and one year into treatment – fitting me with splints and medication – I was called in to test for the clinical trial. I was so enthusiastic about the trial I returned all the phone calls immediately and drove down to UC Davis several times for full-day testing. I was accepted into the trial as Research Subject 1 or RS-1.

Because I was the first subject enrolled in the study, the research clinicians tested trial protocol on me. They regularly apologized for the scattered visits and long waits as they built the program around me. I assured them they had nothing to apologize for, I was thrilled. Any inconvenience was worth being part of medical research for a disease so omnipresent in my family.

Over the next two years I visited the clinical lab at UC Davis every few weeks and months for testing. The schedule was pretty rigorous and so were the tests. I was put on a medication that had to be refrigerated and taken twice a day. After each visit, I left with a new batch of medication in three white boxes that fit into a large blue cooler case. The clinical research staff and I laughed about the fact that the medication was described as “banana flavored” but tasted like sunscreen left out in the sun too long. Bitter banana sunscreen juice.

I was a very good research subject. I took all of my medication, filled out the drug diary twice a day which was probably the most laborious part of the trial apart from the testing. I traveled with my medication and put little white boxes with my name on them in the fridge at work. I never missed a dose.

The trial was long and the research assistants who coordinated my visits changed a few times. They met me down at the lab when I arrived for blood draws, took me up to the research lab for the paperwork, did my EKGs and strength tests, then worked around the doctor’s clinic schedule to squeeze in the physician tests. They brought me to the patient clinic for parking

validation, reimbursed me for the cost of gas to and from the lab, and conducted phone visits with me every week to two weeks.

One of my favorite research staff had just returned to work after having her first baby when the trial started, and by the time we were wrapping up my final tests she was recounting her son's 2nd birthday party. We didn't see each other's faces until well into the trial when we were able to take off our masks in the hospital.

I finished the 16-month trial and was invited to participate in the open label extension which is the final drug testing phase before FDA approval. If I liked the medication after FDA approval, I could remain on it with a prescription. I stayed on the open label drug for a few months then decided it wasn't for me. The formula changed throughout the trial and this last dose had adverse effects.

I exited the study with a heavy heart and cried during my last visit about how much I appreciated the research and what it means to my family. More than anything, being RS-1 gave me an incredible view into the world of medical research where labs full of dedicated people are searching for cures. I'd never seen anything like that before. Because this particular lab conducted research on pediatric muscular dystrophy, too, I'd overlap with kids doing their strength and mobility tests. One particular toddler raised his little arms in victory after climbing three stairs and shouted, "I did it!" while everyone clapped.

The fellowship and the clinical trial overlapped by a few weeks. I applied for the fellowship in September of 2023, completed my final study testing at UC Davis in October, then traveled down to the Stanford campus to join the cohort in November.

CMT isn't curable and I'm no longer treating it beyond the splints I wear at night and on bike rides, and the cane I keep in my trunk for long periods of standing. It is in my blood and in the blood of my children whether they are affected or a carrier. I am the keeper of the family medical history now that I have a list of diagnostics and interventions.

Family members on my dad's side call me with questions on occasion, considering being tested themselves. I think deciding whether or not to be tested is a matter of choosing to live with the known or the unknown. I've decided after much thought not to test my children since our form of the disease doesn't seem to progress until adulthood. The decision is theirs and I will support them whatever they choose.

I told a friend when the fellowship started that I was excited to go from research subject to researcher. I was excited to poke around at something other than myself. I also loved the idea that we were the first cohort to go through the program and it would be tested through our participation.

The similarities between the trial and the fellowship are uncanny. The trial illuminated plenty of things about my body I'd taken for granted or misunderstood, and the fellowship is allowing me to dig into my memories and process what's been hard to access under the weight of daily responsibilities. Both processes are guided and supported which is necessary for stepping into the unknown.

COMMON REACTIONS

Three years into my disaster recovery career I took my first course on resilience. It was a teaser course taught by an instructor from Butte College Training Place who helped develop the curriculum for local businesses and organizations moving through trauma from the Camp Fire.

The only word I can think to describe myself as I sat in that teaser course is brittle. I see pictures of myself from early 2023 and I look eerily normal while inside I was inches from shattering.

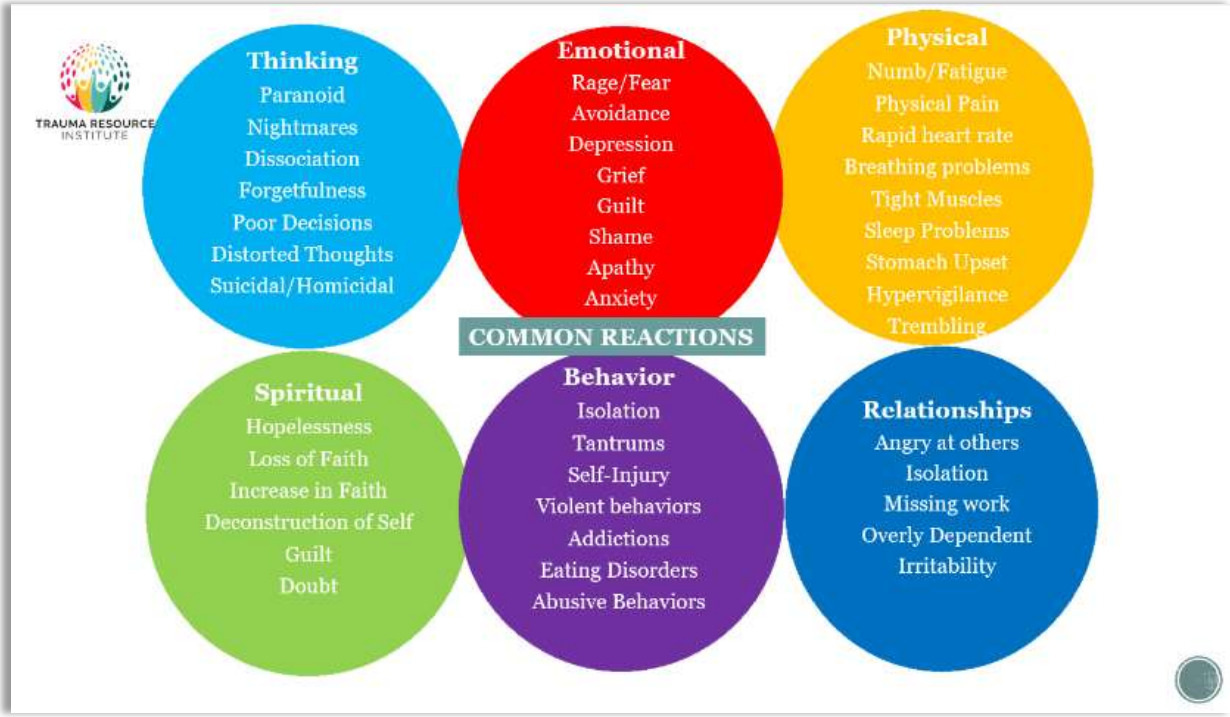
The instructor walked us through a series of slides on trauma: the causes, the effects, the other side of it once you make it through. I am deeply certain now that I knew then I was traumatized by the fire, its aftermath, and my recovery work, but at the same time I'm 100% sure if you'd asked me if I was suffering the effects, I'd have said no.

One slide from the Trauma Resource Institute had 6 bubbles:

1. Thinking
2. Emotional
3. Physical
4. Spiritual

5. Behavior
6. Relationships

The bubbles contained words describing common reactions to trauma in each category.



The Thinking bubble said paranoid, nightmares, forgetfulness, poor decisions, suicidal. The Emotional bubble said rage, fear, avoidance, depression, anxiety, guilt, grief. The Physical bubble said rapid heart rate, breathing problems, numb, tight muscles, sleep problems, hypervigilance, trembling. The Spiritual bubble said hopelessness, loss of faith, increase in faith, destruction of self, doubt. The Behavior bubble said isolation, tantrums, eating disorders, addictions, self-injury, violent behavior. The Relationships bubble said angry at others, missing work, overly dependent, irritability.

Huh. I blinked at the list a few times then pulled out my phone and took a photo of the slide. This was going to take some studying.

What struck me was finding the many quirks I'd developed over the past few years on the same list. I know anxiety and depression are common reactions to trauma but here were all the issues I'd randomly mentioned to people over the last few years: the breathing problems, the hypervigilance, the trembling, the on-and-off clutch of my eating disorder.

I'd told my doctor at a recent visit that my throat sometimes felt like it was closing up and I worried about my breathing. I told a reiki specialist I'd seen a few times about the hypervigilance and extreme startle reflex but chalked those up to being tired all the time. I've

had an eating disorder since my early twenties and though I consider myself mostly recovered, I've spent enough time in treatment to know the signs of recurrence. Here and there I saw the signs.

I sat in that resilience training and wondered if I'd been fooling myself. Was I a poster child for common reactions to trauma? Not even occasional or rare but common? Once again, I had overlooked the obvious.

All my life people have called me tough because that's the image I cultivated. On social media I would broadcast my ability to run toward my fears instead of running away from them. I would explain that this wasn't because of bravery but because I felt 49% terror and 51% conviction, just enough to lean in. This wasn't humility, it was honest self-expression that I bet allowed me to think I'd be successful in the disaster recovery field despite my doubts. Terrified but determined was my motto. I told a woman on a work tour recently that I chose between my peace of mind and lessons of a lifetime when I said yes to this career change. The 2% margin.

When Adela was a young teen, I bought her a necklace that said "fearless" because she seems to come by it more naturally than I do. She attended most of the Paradise Town Council meetings with me as a toddler when I ran the Paradise Chamber, one time lifting my dress from behind as I stood at the podium. That one little moment of mooning the audience eradicated my public speaking fears henceforth. She regularly pushes me past my own limits.

Adela also sat in Chico City Council Chambers for seven years when I was CEO of the Chico Chamber, one time saying, "they talk to each other like they don't know we're watching them," during a particularly contentious Council discussion. She sees the veil of power then peeks behind it. Recently I delivered some of my black work pants to her on the Chico State campus for a presentation she gave in business class. She tells me she believes she can navigate the working world so easily because I've made my closet accessible to her, a small building block to success.

I am embarrassed by so many things from my early career in Butte County, but especially my youthful swagger and the photos and posts I chose to share on social media. I created a distance between my narrative and the actual experience of living my life, all out of a desire to be liked and to belong. This is precisely where I find myself right now, still somewhat caught in the middle.

I like to belong. In fact, I'd probably say that I've felt a need to belong my whole life in order to believe I'm good and worthy. I like belonging to associations, to friendships, to non-profit culture, to a downtown where everybody knows my name. I like to be thought of as a participant and a contributor so I am trusted enough to belong. For many, many years I worked hard to belong.

The price I've paid for belonging is the absence of worthiness when I don't. The common reactions to trauma are a barrier to belonging which I'm certain has impacted far more people than just me, in fact I'd put that number in the tens of thousands following the fire. My social system was not disrupted by the fire itself, but it was deeply disrupted by the alienation of the aftermath and recovery, the professional choices we've made in response to community needs, the turning of our common reactions to trauma against others who are trying to move on.

Sitting in the resilience training I saw a stranger looking back at me from that slide, but I also felt seen. The reconciliation of both is what I'm working on now. I've never been a naturally confident person but I've used that 2% to get by, and in the past it has been enough. I'd say the inverse is true at the moment and it's resulted in my withdrawal from friendships, my silence on social media, and the tight hold I have on this story. I see no evidence of belonging, of being liked, and instead of leaning past terror into the cushion of conviction, I've leaned as far out as I can go while staying in the game.

After the training I was so disoriented I got in my car and drove in the wrong direction, crossing several lanes of traffic recklessly, needlessly. Thankfully, turning around gave me time to cry all the way back to work. The instructor asked for feedback after the lesson and I was honest. I said it was unfair to crack us open then send us back into our afternoons without a wind-down or a close-out. We didn't get to the resilience part – at least I hadn't. He acknowledged that he and the other training staff felt the same way and would handle these mini trainings differently in the future.

RIVER FIRE

Yesterday I went on a wildfire and biomass tour in Placer County. It was a well-organized event with seamless transportation and great food. Attendees were well cared for except for getting back to our cars much later than expected due to incredibly informative tour guides. The logistics were nearly invisible and on the surface it was a success.

Emotionally, however, I was jostled and I wasn't the only one. Our first stop was the River Fire burn scar where flames had reached just inside the outskirts of Colfax, a lovely town in the Sacramento foothills. Colfax looks strikingly like Paradise before the Camp Fire – ranch homes tucked onto large lots in mature forest pockets with thick overgrowth and great views.

Colfax has a population of 2,000 built around a charming, historic downtown. As the roads wind up into the hills the views of the Sierra Nevada mountains stretch out for miles above the oak-filled valley. Near the top of the ridge large homes spread out with panoramic views.

The River Fire occurred in 2021 and is thought to be of human origin. It destroyed approximately 150 homes in two communities spread over two counties. The steep ridges

leading up to the homes are filled with the kinds of matchstick trees fire leaves behind. Behind the damaged forest, healthy trees and meadows cover the green foothills. Here, it isn't fire as far as the eye can see like in Butte County. There's an unsettling contrast of before and after.

Today, I happened to sit on a national rural recovery training with a woman working in River Fire recovery. She called it a "low interest disaster," meaning it hasn't caught the attention of the media nor the jurisdictions enough for a leader in disaster recovery to step forward.

My impression of the fire is that it left both of the communities it touched mostly intact which didn't lend itself to a drastic change in community lifestyle for either. This is not a critical mass "wake up call" fire, it is an unfortunate event, which individual homeowners – survivors and those in standing homes – are left to interpret and react to in their own ways. This is not to say the loss of 150 homes and the disruption of those households was not a tragedy, it very clearly was, this is only to say that given the scale of the communities it impacted in a mostly suburban setting, the River Fire didn't impact everyone in the same way.

On the tour of the River Fire burn scar, a speaker shared his process of treating his 20 acres just over the hill beyond the burn scar to reduce risk. It is very expensive for private homeowners to treat their land, and/or it requires grueling physical work. The speaker explained he is doing most of the work himself and it is taking years to chip away at his acreage. Several homes leading up to the fire line are still shrouded in dense brush and trees. It's hard to tell from the outside if that is by choice or by necessity, due to a lack of resources for defensible space management. Many homes just outside of the burn scars in Butte County are in much the same condition.

I had a hard time lifting my head while standing in the burn scar, partially out of the hardship of seeing the destruction and partially out of respect for the survivors. I now know from studying the Camp Fire burn scar that it's exploitative to stand in a burn scar without paying proper respect to the survivors. Instead, I kept my eyes on the chips and slash beneath my feet, the black bark and stumps revealing trees that had been felled and chipped right where we were standing.

An attendee asked how long it would take for the forest we were looking at to regenerate. In this stretch where the fire burned hot there is 100% tree mortality. I heard someone mumble next to me, "10 years?" I think we guess 10 years to assure ourselves the landscape will return to its natural beauty within our lifetimes. The real answer is at least 80 years with the right soil treatment and proper maintenance which, as the speaker just explained about this own property, takes constant care, cost, and effort. If he took more than a decade to treat half of his 20 acres, who would take on the work and cost of restoring these 2,600? It depends on who the land belongs to and, as the speaker said, we can't tell them what to do.

On today's rural recovery training a slide said, "The greatest loss is often devastation to the land itself." I am in mourning when I visit burned lands, almost as if they are burial grounds. In many cases, these lands are part of tribal territories and they are burial grounds.

The facilitator sent out an evaluation form a few days after the tour. I gave the tour high marks then proposed a trauma-informed approach next time that might soften the exposure of wildfire on people who have experienced it themselves, and deepen the experience for newcomers. I said the approach could involve language acknowledging the presence of trauma and the desire of the tour facilitators to reduce re-traumatization.

At one point on the tour, we took a group picture and as everyone stood still for the camera someone shouted, "wildfire!" as if to say, "cheese!" This sent an unwelcome ripple through the crowd and another person countered with, "say trees!"

It is not enough to witness the devastation and to walk away. Wildfire feelings are too big for most people anymore, whether they've been personally impacted or known and loved someone who has. Just the loss of the land is enough for grief to spill over into public view. By acknowledging the presence of trauma in ourselves and others, we set a tone for these experiences and allow for big feelings to be present, even amongst a group of strangers.

SECONDARY TRAUMA

After the resilience teaser, I worked with our team to bring the instructors to our office. They designed three classes especially for the Emergency Management and long-term recovery teams which took place between August and September of 2023. The resilience message was

mixed in with commentary on standard interpersonal relations which made the training applicable to disaster and non-disaster workers.

I've tried quite a few self-help and help-me approaches since starting disaster recovery. In four years, I've seen two counselors, a reiki specialist, and a life coach. The life coach, my friend Caryn, took the approach of setting up a few phone appointments with me to dig in to the effects of secondary trauma. Before the first call I had a hunch what was holding me back and I tested it with my husband. I couldn't even think about Dave Daley's cow story without weeping. It was time for it to come out.

The County seat is in Oroville which means I drive from Chico to my office in the morning and home in the evening. The drive is striking at all times of day: rolling hills, low fog, high clouds, big skies for rainbows and storm watching. One morning a helicopter lifted up and dropped into the orchards over and over lifting cold air up and pushing warm air onto the trees to keep them from freezing. It's an expensive endeavor for occasional springtime freezes, but not as costly as losing a whole crop.

During the winter months the fields are full of grazing cattle. Migrating birds fly overhead in big Vs or long strands like dark rivers in the sky. Calves run and jump playfully while the cows keep their heads in the grasses morning and night. One morning a black cow munched happily on the wrong side of the fence while a CHP car sat between it and the highway until the rancher arrived. When the wildflowers are blooming like they are right now, thick blankets of yellow and purple pool brightly in the fields.

Driving back and forth through these working lands and open space allows me time to tune in to my thoughts and feelings. Watching the cows graze often brings me back to Dave's story of the pregnant cow standing in the puddle. I think of her as I watch the healthy, lively cows eating under the winter sun and the babies frolicking happily in the fields. When the cattle are gone during summer months, I now know they've moved in to the mountains.

On my commute one morning I saw a female deer sitting in the median of the highway between two fast lanes going in opposite directions. Her ears perked straight up, her body still. As I approached her, however, I saw she wasn't sitting, her legs were broken underneath her and she was unable to move. She looked ready for whatever was next which surely must be better than this. As I drove by at top speed, I knew there'd be no saving her, these were her final moments. Animal control would arrive to take care of her, much as Dave had to take care of his pregnant cow. For the next week I wept on my commute and still feel tears when I think of her.

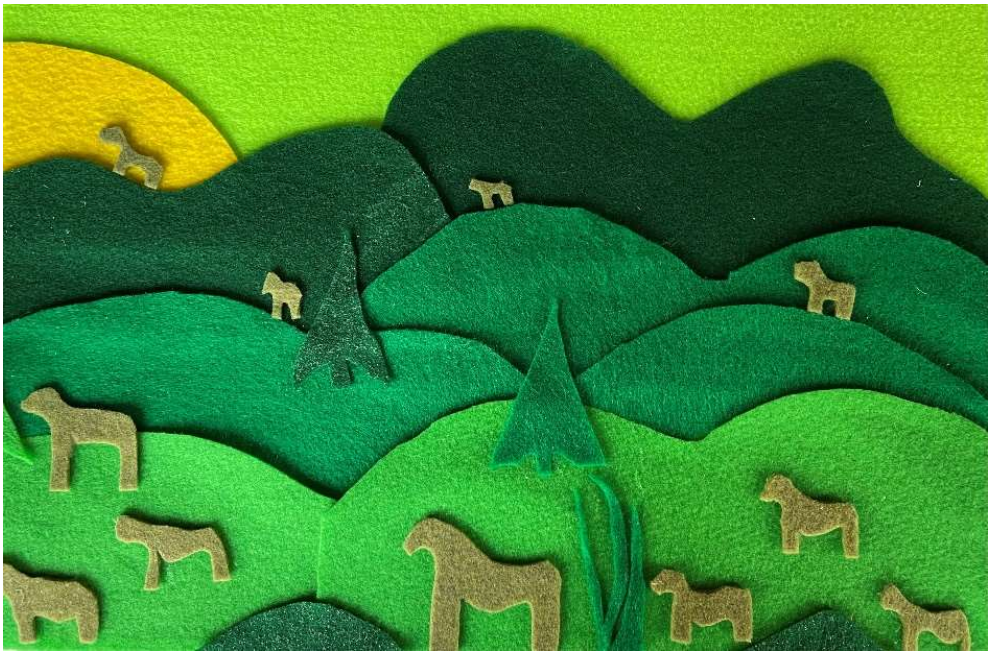
During my first coaching session with Caryn, I told her the cow story over the phone in the parking lot at work and barely got the words out. She agreed if it wasn't the beating heart of my

grief it was pretty close. She gave me my first assignment: see if I felt safe enough with anyone to share the story. Shortly after this coaching call, I was on tour of the North Complex Fire scar listening to a colleague talk about Cal Fire counting wildlife losses.

I wanted to talk about Dave's cow but I couldn't without crying which didn't feel professional so I looked quietly out the window instead. Still, if I had been able to talk about it, it would've been a safe place to do so which is what we were after. Caryn knew my world had gotten very small and she was challenging me to find spaces and people in my life that could withstand and maybe even relate to this level of grief. Now, this is how I test people and places – can I tell the story here? If the answer is yes, I know I'm in good hands. My hope is to one day have an abundance of stories to tell and an abundance of people to tell them to, and vice versa, when my world opens back up.

During the next session Caryn gave me another assignment. She knows my daughter, Heidi, loves arts and crafts so she told me to make something with my hands to honor the cows. It could be a painting, a poem, a picture, whatever came to mind, and to involve Heidi if that felt right.

On a trip to the local craft store I searched for inspiration. I'm not super crafty so I let myself wander the aisles before finding a row of felt sheets in various colors. The colors were limited but there were several shades of green, brown, and yellow. Suddenly I could see it, a scene with happy cows in the hills and grass, grazing, safe and sound in the sun. Heidi wasn't entirely on board with my vision but it was all I could come up with so we bought the felt and went home to craft.



I'm a bit of a perfectionist but I knew the spirit of this project was to let my feelings out, not to control the outcome or try to make something of value to anyone but me. It was the doing that was important. I grabbed the scissors and started shaping hills, the sun, and cows out of the

felt, sticking them all together in layers. Heidi eventually saw the vision and joined in, cutting out cows and helping me organize the scene. To avoid overthinking I started gluing right away, pausing only to think of the scale of the animals on the hillsides and mountains.

At one point, when the felt scene was almost done my husband came over to see what we were doing. “Are those….dogs?” he asked, “or…gorillas, or elephants…is that a baby crawling?” As he pointed to our creatures Heidi and I started laughing hysterically. I tried to shoo him away but fell over weeping with real tears of laughter as he examined our beautiful artwork.

For several minutes I cried and laughed and laughed and cried, wiping my eyes and gasping for breath. It was the loveliest moment imaginable, my cows, my family, my grief, and my ability to laugh at myself, all wrapped up in a single piece of art. Caryn was a genius for suggesting this. She knew making something was the only way to change the shape of the pain and its grip on my heart, and bring a little bit of laughter back.

QUANTIFYING INDIVIDUAL RECOVERY

Shortly after I discovered the obvious – that there is no single definition of recovery – I began to think about the pros and cons of quantifying individual recovery. As Professor Siembieda says, it is a choice of practitioners not to quantify recovery because of how dynamic and complex the process is. But then how do we measure and report on our progress?

I run into the same problems quantifying recovery as I do defining it: who gets to decide? As recovery instructors will tell you, all disasters are local. As global as COVID was, its impacts were not universal, they were local. In Paradise, COVID was a blip, in other communities COVID was a full-blown disaster.

Disaster impacts are precisely quantified: acres burned, number of fatalities, percentage of structure damage and destruction. Disaster response is measured in numbers: personnel and equipment assigned, percent contained. My fellowship mentors encouraged me to think about what quantifying recovery could mean so I started listening for it in the world of disaster recovery.

At the River Fire tour, a woman from a neighboring county told me she was watching Butte’s recovery closely. She said her city recovered 80% of their homes lost in a recent fire within two years. This is a very impressive statistic and I congratulated her and her community on their hard work, but what I wanted to know was:

- How many homes had they lost?
- What was the percentage of total housing stock lost?
- Were structure damages contiguous or scattered?

- Were the homes lost hooked up to municipal water and sewer?

That's just the tip of the iceberg in terms of understanding the scale and pace of recovery.

Professor Siembieda encouraged me to focus on viability rather than quantification, but even viability is complex. In an interview with our Assessor's office, I learned they'd done an analysis of taxable base rates for recovery to understand the impact of legislation to extend property tax breaks. In their analysis dated May 23, 2023, of 14,200 total assessments, they found 4,671 properties had been sold, 2,043 properties had been rebuilt, and 1,284 property owners had moved out of state. This left 4,165 property owners who may seek relief which, the Assessor argued, was highly unlikely given the number of people who would not rebuild based upon age, income, ability, and a variety of other factors. She referenced her own in-laws who, in their eighties, lost a home they would never rebuild.

For disaster relief analysis, she explained that land is included if the base is transferred under AB 556, and not included if the home is rebuilt under AB 1500. The calamity base transfer only applies to a similarly valued home. For many people upgrading, this means the calamity base transfer does not apply. For example, a property owner had a 1,000 square foot 2 bedroom / 1 bath home worth $250,000. If they purchase a 1,600 square foot home with 3 bedrooms and 2 bathrooms worth $400,000, their original base would be reinstated at the time of transfer, and they will have a secondary new base for the $150,000 upgrade.

AB 556 states that the property tax base year value of real property that is substantially damaged or destroyed by a disaster, as declared by the Governor, may be transferred to a comparable property located within the same county that is acquired or newly constructed within 5 years after the disaster as a replacement property. With the Assessor's advocacy on behalf of Butte County, the bill extends the 5-year time period by three years if the property was substantially damaged or destroyed by the Camp Fire.

AB 1500 authorizes the owner of property substantially damaged or destroyed by a disaster, as declared by the Governor, to apply the base year value of that property to replacement property reconstructed on the same site of the damaged or destroyed property within 5 years after the disaster if the reconstructed property is comparable to the substantially damaged or destroyed property. The bill extends the 5-year time period by three years if the property was substantially damaged or destroyed by the 2018 Woolsey Fire or by the 2018 Camp Fire.

In both legislative cases, data was used to analyze the pace at which recovery is occurring and what is happening with the properties that are not being rebuilt, i.e., if they are sold or the owner relocates out of state. This analysis showed that not all properties eligible for disaster tax relief would seek this relief or, over time, be eligible for it.

Quantifying recovery means we can see just from this data that the number of houses sold is more than double the number of properties rebuilt. The Assessor's staff and I talked about the value of looking at relocation data to determine the likelihood of a rebuild, perhaps tracking this number from the time of the incident for the next several years as I mentioned with the Chico State postal code study. It's quite possible there is a correlation between an owner's physical distance from their property and their ability or interest in rebuilding and tracking this information annually by a local government can provide insight into the rate at which the tax base might restore.

CAL FIRE produces a DINS report (Damage Inspection) for major incidents. The DINS process organizes structures into 5 types – single family, multi family, mixed use, commercial, other/minor – with 4 categories of damage:

1. Affected (1-9%)
2. Minor (10-25%)
3. Major (26-50%)
4. Destroyed (>50%)

Since local government has access to DINS info, a City or County could potentially use the parcel data on file with the local Assessor (wells, septic, owner-occupied), layer in the statistics gathered by the State on available resources (FEMA individual assistance, presence of insurance, disaster loans disbursed, unmet need calculations), factor in the availability and readiness of settlement payments, then tap economists to advise on market conditions. Taken together, this data could help determine the rebuild feasibility of single-family residences in categories 2 – 4. Category 1 could be habitable with remediation and likely not require the full resources of a rebuild.

Here are some DINS examples:

Dixie2021 DINS Public View | Dixie2021 DINS Public View | CNRA GIS Open Data (ca.gov)
2018 Camp Incident DINS Final Report.pdf (nist.gov)

Overall (all jurisdictions)

Category of Damage	Affected (1-9%)	Minor (10-25%)	Major (26-50%)	Destroyed (>50%)	Grand Total
Single Residence	412	47	3	13696	14158
Multiple Residence	21	3	1	276	301
Mixed Commercial/Residential	1	1	0	11	13
Non-residential Commercial Property	76	18	8	528	630
"Other" Minor Structures	89	32	15	4293	4429
Total	**599**	**101**	**27**	**18804**	**19531**

The table above is from the Camp Fire DINS report. If we're looking at the feasibility of Camp Fire recovery overall – specific to individuals – we might apply the parcel metrics to the top row from minor through destroyed. In the case of this disaster, that's still the vast majority of the damage (my interviewees indicate flood impacts trend higher on affected versus destroyed, the opposite of wildfire) but weeds out what is likely not residential and/or subsidy-dependent to get closer to a rebuild estimate. Then, we might look at interventions like incentives (State-operated loans and grants) or barrier removals (programs to offset septic repair, for example) to measurably increase that estimate to set a goal for the first 5 years of recovery.

Professor Siembieda explains there are two approaches to individual recovery: incentivize or remove barriers. In cases of rural wildfire recovery, removal of barriers may be a more affordable route if grant funds are available to offset fees and lower the overall cost of reconstruction.

Using this method, imagine an urban fire with high-density, owner-occupied housing connected to municipal services, and a minimum household income of 120% AMI. Imagine 30% of the total housing stock is impacted by fire, sustaining damages from 10% to greater than 50%. Then, let's say using DINS + parcel metrics the rebuild estimate is 70%. Imagine removing barriers and incentivizing master planned developments through permit streamlining driving the rebuild estimate up to 80%. If 70% of your housing stock is untouched and you can recover 80% of what you lost, your chances of community viability 5 years post disaster are very high.

Now imagine a rural wildland fire damaging or destroying 5,000 homes in the wildland urban interface which represent 80% of the total housing stock. Their rebuild feasibility comes out to 30% and barrier removal is too expensive for the local government. With 20% of their housing stock remaining and only 30% of what they lost coming back, community viability is low.

I say all of this knowing full well it is not that simple. Recovery can't be worked out on a piece of paper. I also feel very triggered as I write this – similar to how I felt when the researchers suggested we only rebuild in the center of town. A mathematical approach to recovery is off-putting to me. It is clinical and sterile to reduce personal choices to statistical likelihoods after a tragedy of this size. But, is it one way to understand individual recovery? Yes, I believe so.

COMMUNITY RECOVERY PLANNING

The rural recovery training I sat on this week used the Joplin, Missouri, EF5 tornado recovery as a model for post-disaster community planning. The tornado was the nation's deadliest and costliest tornado on record and within 6 months the recovery team had a community-led recovery plan in hand that, as the instructor emphasized, received a standing ovation when it was released to the public.

A community working together to wrap expectations and a timeline around recovery makes a lot of sense. A plan gives a community a sense of comfort, directional unification, and shared expectations. If an outside agency working independently of local government, organizations, and residents came in and handed out a recovery plan, the community would likely revolt.

A consultant led Paradise residents through the development of the Long-Term Community Recovery Plan following the Camp Fire. This plan identified community projects and priorities to guide the Town, local agencies, organizations, and the community at large toward a shared vision of recovery and resilience. When I worked at the Town I regarded the plan as the highest form of recovery direction, led as it was by the people the fire had impacted who wanted to remain.

An attendee on the rural recovery training shared a downside to measuring recovery I hadn't considered. He referenced a recovery plan that announced a date by which the local school district would reopen following disaster. For many parents longing to re-establish routine and familiarity in their kids' lives, this news was a great relief and something they planned their lives around. For others, it added pressure to a commitment they weren't ready to make. It represented a ticking countdown to a significant marker of recovery that accelerated their decision to remain in place – a decision they weren't sure was the right one.

In the end, recovery can only be defined and measured by each person experiencing recovery. To measure collective recovery, a plan must be set in place defining specific outcomes according to a set timeline, with defined roles and responsibilities to establish accountability. The plan then must be fully funded for implementation and reviewed occasionally for updates and adjustments as the reality of recovery sets in.

The recovery instructor shared a list of 4 key indicators that a community has recovered successfully:

1. Meets its priorities to overcome disaster impact.
2. Reestablishes an economic and social base.
3. Instills confidence in local citizens and businesses.
4. Rebuilds community in a more resilient way.

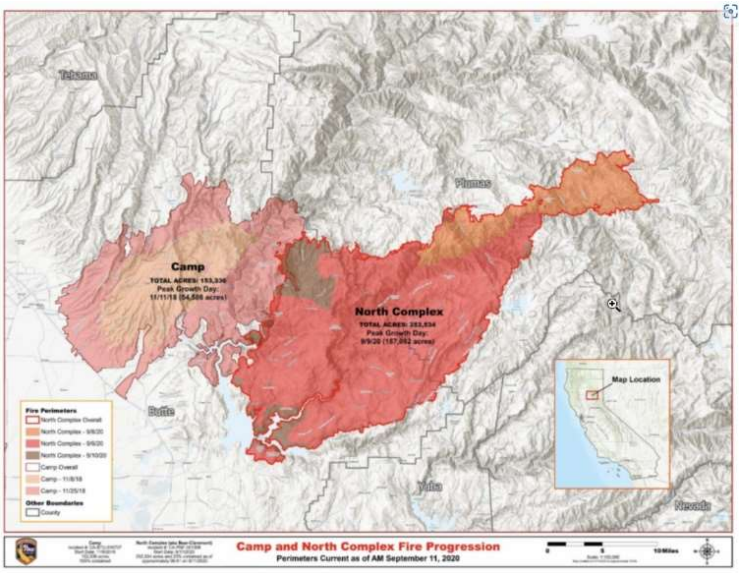
This can be used as a guide but it is still subjective. And should recovery ever be declared successful if even a single household is left permanently displaced or unhoused by disaster? Recurrent wildfire recovery is like filling an ocean one raindrop at a time. As the ocean fills it evaporates, starting the cycle all over again.

(Materials from the Rural Domestic Preparedness Consortium – FEMA)

TRIAGING COMMUNITY RECOVERY

If setting a goal for housing recovery then working backward isn't the right approach, I imagine recovery professionals running through a decision tree full of questions that may or may not be applicable to community recovery. The decision tree would act as a triage step following response and during early recovery to begin to assess the overall viability of community recovery. Professor Siembieda recommends I focus on viability which is a word that appears over and over in the limited long-term recovery research I can find.

Merriam Webster defines viability as the ability to succeed or be sustained. After disaster are we working toward viability or are we working toward recovery? The down payment approach certainly leans toward viability.



Each fire has a unique cause which has implications during recovery. Wildfire is a catchall word for a series of causes and effects. No two fires are the same. At the County, we say to each other, "you've been through one fire, you've been through one fire," to mean the skills may be transmittable but they won't be a perfect match because the needs and variables will differ.

I describe working on recovery from two different wildfires as a "bifocal" experience. Each fire requires a different lens with a different depth and strength. I can see both fires within the same frame but I can't focus on them at the same time because the overall picture of recovery blurs. Now that we've layered in even more fires and recovery processes, we might as well be looking through a kaleidescope.

The Camp Fire was ignited by a faulty electrical transmission line owned and operated by PG&E. Lightning caused the North Complex Fire, originally called the Bear Fire before it merged with others. Camp Fire recovery involves resources from settlements between PG&E and impacted jurisdictions and survivors. North Complex Fire survivors have no such settlements. This single difference in resources defines much of the recovery pace, scale, and capacity.

Both fires significantly destroyed entire communities and large wooded areas. Much of the Camp Fire destruction, however, occurred in a municipality with local representation, services,

and capacity. All of the North Complex Fire occurred in unincorporated areas of Butte County where small communities lack dedicated and defined resources, served as they are by a workforce operating throughout the county. Again, just this distinction in jurisdiction impacts the ability and capacity for recovery.

If I'd never entered the field of disaster recovery, I might think recovery was dependent upon the number of acres burned and fire duration as this is what the media reports. From a firefighting perspective these details matter for response. But for recovery, they are less consequential than the cause of the fire and who is responsible for rebuilding the community. As the recovery professional explained about the River Fire, two different cities in two different counties lost homes and, in her opinion, no one really stepped forward to take charge of recovery.

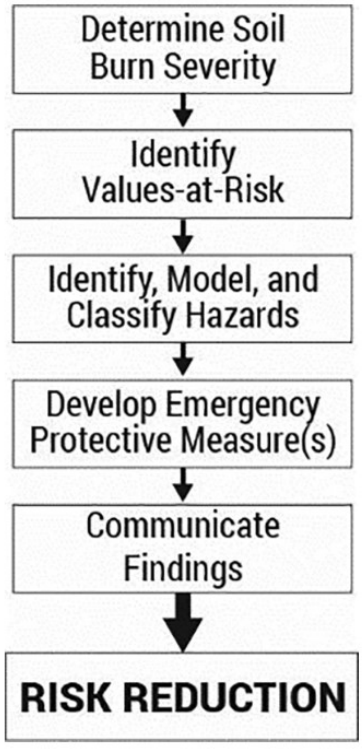
RECOVERY TRIAGE TREE

For the community recovery triage tree, I imagine a fire being wheeled into an Emergency Room and whisked into triage. During triage, questions could begin leading to a better understanding of severity and treatment. Depending on responses, certain tests could be administered leading to a deeper and better understanding of what's ahead for recovery planning, expectation setting, public messaging, and policy decisions.

Assess the Aftermath

Adding to quantified disaster impacts such as structure and utility loss and damage, I recommend assessing the potential significance of the aftermath using these questions to get started:

Q. What type of disaster occurred and in what season did it occur?
   - Are there concerns about debris flow or flooding in the same or different jurisdiction(s) as the fire impacts?
   - Will immediate or seasonal weather increase the hazards in the impacted area over the duration of debris and tree removal?
   - What agencies are measuring risk and are they communicating?
   - Are the people showing up to respond also survivors?



Depending on the size of the wildfire, the Incident Management Team may begin organizing resources to determine post-fire effects. Answers to these questions will help anticipate the compounding effects of weather and secondary disaster on response and recovery. A compounding effect may be fewer dedicated resources if the aftermath grows into a larger disaster and the workforce is displaced or spread across a greater number of impacts. The aftermath will also be shaped by how many survivors are part of response. Tracking trauma from day one will be critical to providing adequate support and resources.

Anticipating or adding aftermath impacts to disaster impacts on people and the landscape, within a reasonable timeframe, allows for a more holistic view of what the community will have to reckon with in the long term. When the worst has occurred, it's hard to imagine that it might get worse, but it's best to understand and accept that reality going in to recovery.

Cal FIRE produces a Watershed Emergency Response Team (WERT) report following certain wildfires that offer rapid analysis and recommendations for mitigating and managing flood and debris flow following fire. This can be a helpful tool in preparing for aftermath impacts.

The graphics on the prior page and this page are from the California Department of Conservation web site explaining, "What is a WERT?"

https://www.conservation.ca.gov/cgs/landslides/wert

The Who, Why, and Where of WERTs

Who: CAL FIRE is the lead agency and Team Lead. The Department of Conservation/California Geological Survey is the Team Co-Lead and Geohazards Technical Lead. The Department of Water Resources and Water Resources Control Boards provide additional technical support.

Why: WERTs were developed because lives, homes, and infrastructure are at risk to debris flow, flooding, rockfall, and other environmental hazards.

Where: Given staffing capacity concerns, fires are prioritized based on severity of debris flow/flooding hazards relative to population vulnerability. Not all fires receive WERT evaluations.

It would be difficult to say in which order each section of the Triage Tree should be analyzed, rather, the suggestion is to ensure each section is considered. Thinking through the ER patient example, some impacts will be less visible than others, requiring deeper testing and more time to measure and assess the damages that cannot be seen easily from the outside.

RECOVERY TRIAGE TREE

Disaster Impacts

What is the level of destruction?

+

Aftermath Assessment

What is the starting point of recovery?

Jurisdiction Responsibility

Who is in charge of recovery?

Insurance Availability

Will insurance proceeds be enough for most survivors to rebuild?

Reconstruction Viability

Are labor and materials available and affordable?

Development Pace

Should the local government and community prepare for long-term recovery?

Economic Factors

Is the local economy sustainable during recovery?

Government Capacity

Does the local government have experience and capacity to lead recovery?

Urgency Policies

Are local policies sufficient to meet changing needs?

Resource Types

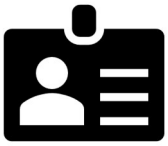
How flexible are the funds for recovery and when are they available?

Individual Assistance

What percentage of survivors will need outside assistance and resources?

Agency Coordination

Are the right agencies working cooperatively?



Determine Jurisdiction Responsibility

As the disaster and aftermath impacts are assessed, it's important to start framing up responsibility for recovery. If you work in local government or for an agency with some recovery responsibilities, consider how the answers to these questions may shape your role:

Q. How many jurisdictions were impacted and how are the impacts across jurisdictions the same/different?
   - Was State and/or federal land damaged or destroyed?
   - Were the areas impacted known to be economically disadvantaged and/or high on the social vulnerability index: https://svi.cdc.gov/map/
   - Does the impacted area have a high degree of wildfire recurrence?
   - Is the population largely experienced in response and recovery?
   - Were the majority of homes dependent upon municipal services like water and wastewater, small community systems that are privately owned, or individual wells and septic?
     - Were any water or wastewater systems damaged or destroyed, and what is the funding availability and timeline for repair?
   - What is the status of public and privately owned utilities?
     - Are the private utilities planning any upgrades during restoration like undergrounding or other hardening activities that may need additional time, permits, public messaging, and funds to complete?
   - Were the majority of homes located on/around private roads the homeowners will be responsible for repairing, are the homes generally accessible for recovery and reconstruction vehicles and/or behind locked gates?
   - Were any major roadways damaged or destroyed?
     - Which communities will be most impacted by debris/tree removal truck traffic, depending on where the end use facility is located?
   - Is there a known community gathering spot or are there key organizations serving the burn scar who are or will step up as community leaders?
   - What are the immediate and lasting population changes within the burn scar and all surrounding communities?

Rural fires and urban fires require different approaches to recovery. Whereas a fire in a concentrated urban setting may direct recovery funding toward government infrastructure and services for repair and reconstruction, funding for rural fire recovery may be disparate and individualized as population density is low and municipal services are not available. Fires impacting denser populations may increase the value of economic losses which trigger State and/or federal funding; fires in rural areas where more land but fewer homes are damaged may not reach the economic value threshold.

These questions may help illuminate the availability of funding and immediacy of needed infrastructure repair, and the dependency of housing recovery on municipal infrastructure and

services versus self-owned or private systems and roads. They may also help determine how prepared and responsive the community will be to recovery based upon prior fire experience. Initially, these questions may start to shine a light on temporary housing needs and conditions, and the volume of resources needed on the public and private side for the way responsibility is divided by land and infrastructure ownership.

Evaluate Insurance Availability

To begin assessing available insurance resources for recovery which are the quickest funding path for reconstruction, consider:

Q. What percentage of the population was adequately insured?
- If households lacked insurance, is it because of affordability/availability, because their house was paid off and it's not required, or something else?
- What percentage of the population was on the FAIR plan?
- Did the fire occur in an area considered "vulnerable" by the California Department of Insurance?
- What percentage of the population received a notice of non-renewal within the last 24 months?
- What percentage were owner-occupants, renters, or second home owners?
- Who are the largest landowners, private and commercial, in the burn scar?
- Are new builds insurable in the burn scar?

Understanding insurability and type of ownership will begin to frame out the resources available for individual recovery: who has access to those resources, and what and where the funding gaps may be. Cal OES says the most significant indicator of quick individual recovery is insurability, and now we have the added pressure of insurance market changes in fire-prone and recovering areas in California. Consumer insurance advocacy groups like United Policyholders are an ongoing resource for this analysis.

Estimate Economic Factors

To begin assessing the economic impacts of the fire on businesses, jobs, and workforce, estimate or survey:

Q. Business impacts
- How many businesses were lost compared to the total number of pre-existing businesses, and what % job loss does this represent to the total market?
- What percentage of impacted businesses were adequately insured?
- What percentage of jobs lost were local-serving and dependent upon the pre-fire population?
- What percentage of businesses are relocating nearby with plans to return?

- What is the temporary or permanent shift in industry groups, i.e., are most dentists relocating, are ancillary industries to the largest impacted employers relocating?
- What are the workforce impacts of population dispersal to nearby towns and to non-commutable distances?
- Are there commercial or industrial spaces functional for alternative recovery uses?
- Are commercial and industrial property owners amendable to removing debris and other hazards to prepare their land for temporary uses?

If a majority of local businesses are not lost or interrupted by disaster, they could be a critical linchpin to keeping the economy going during recovery. These businesses may also choose to operate in service of response and recovery, adapting their products and services to changing demands.

If a majority of businesses are lost to disaster and are dependent upon population restoration, understanding the decisions of each business will help map out who will return, who will relocate and where, or if the business will permanently close. If jobs are primarily local-serving to established households versus visitors, businesses may need to see housing recover before reinvesting.

Of course, some business owners and operators are drawn to the recovery and want to be part of community resurgence and so may choose to rebuild or reopen before the market is ready. While this is risky for the business, it also begins to rebuild trust and interest in the economy and other businesses may follow suit.

Expect a significant churn in the early years of recovery as businesses gamble on a recovering population and for reasons inside and outside of their control – like larger economic conditions – may not be in a position to sustain operations. Losing a business after disaster may trigger yet another community loss of something familiar and dependable. If a wildfire is catastrophic and results in a destroyed community, the economy may not stabilize for several years even with direct business assistance, and it's important to keep that in perspective as changes occur.

It is helpful to do an inventory of surviving and/or operational commercial spaces and lots for repurposing for recovery needs. Large destroyed lots, once cleaned, can operate as utility or corps yards for large-scale contractors moving in for recovery. Standing commercial buildings can be used as headquarters for contractors establishing a local presence.

Ultimately, the uses of these spaces are dependent upon demand, what is allowed by the local government, and what the property owners wishes to do with their property. Public-private agreements can be attractive temporary uses of land during the early stages of recovery, creating cash flow where there would otherwise be none.

Assess Reconstruction Viability

Data essential for beginning the analysis of community viability centers around housing stock impacts:

Q. Housing stock & market:
   - What was the number of damaged/destroyed housing units?
     - What percentage of the total housing supply does the loss represent?
     - What was the average age of the home destroyed?
     - What was the average price of the home destroyed?
     - What percentage was considered affordable?
     - What percentage was considered workforce housing?
       - What percentage of workforce housing supported trades now in higher demand?
   - Is the disaster impacted area known to have a higher degree of title clearance issues, lots lacking in legal determination, lots not surveyed and/or recorded?
   - What was the housing supply in the months prior to the disaster?
   - Is the housing supply being tracked monthly in all impacted and surrounding jurisdictions?
   - Does the cost of rebuilding exceed the value of new construction?
   - What is the labor force supply in high demand trades?
     - Is the labor force supply local, transient, or imported?
   - How has the cost of building materials varied since the disaster?
   - Have building codes radically changed statewide or regionally since the disaster?

Understanding the housing stock pre-fire and post-fire is essential, and several data sources exist to support this. Regional Housing Needs Plans and General Plans provide statistics on what is available and what is needed prior to disaster; Cal Fire DINS reports or agency reports in other states that quantify damage and destruction to structures can aid in understanding the percentage of the impact on the overall housing supply.

I interviewed the Executive Director for Valley Contractors Exchange (VCE) for the fellowship and she emphasized the importance of understanding barriers to reconstruction early in recovery. VCE regularly gathers data to analyze where, how, and who is recovering by looking at the location of building permits, certificates of occupancy rates, and the percentage of stick builds to manufactured homes. Reconstruction is dependent upon available labor and materials so it's important to first look at the impact of housing loss on essential trades for recovery. In the case of the Camp Fire, studies show that 10% of the construction workforce housing was lost, leaving these workers without housing for a period of time. Without housing, even with employment, remaining in the area may not be an option.

If labor is available but materials are in short supply or prices have spiked, recovery may slow down and/or progress in a volatile way until pricing stabilizes. The impact of increasing lumber

prices and building material supply chain issues on Camp Fire recovery during the pandemic was clear – projects slowed or halted. Fundamentally, reconstruction can be largely unaffordable as the cost of rebuilding a home constructed 40 years ago exceeds available insurance proceeds covering only the replacement cost. Any other pressures on the market including supply and demand affecting pricing can reduce the pace of recovery.

Evaluate Development Pace

To evaluate the speed at which recovery can occur, and any efficiencies that can be achieved within the individual recovery process, evaluate the development landscape:

Q. Development considerations
   - Are any impacted areas considered desirable for master planned developments?
   - Are any areas desirable for contiguous spec building?
   - Is the community on CSLB's radar for license stings?
   - What are local attitudes about selling unimproved land to spec builders?
   - Are local attorneys weighing in on the timing of residential land sales?
   - Can certain impacted areas support high-density affordable housing with appropriate infrastructure and amenities?
   - Is the State amendable to scattered site redevelopment?
   - Were mobile home parks impacted and what percentage of park owners live locally?
     - Which parks provided services versus self-service?
     - Is the infrastructure intact for reconstruction?
     - Are State subsidies available for park reconstruction?
     - Can mobile home parks be used as RV parks during the immediate aftermath?

If damaged and destroyed lots are not contiguous, then any kind of reconstruction at scale which can be a more affordable, efficient approach is less feasible. Contractors describe the high cost of fuel driving between reconstruction projects in rural remote areas, and/or the challenge of moving equipment along private gravel roads maintained by property owners.

Multi-family housing construction requires adequate infrastructure to support density, and available local amenities to support financing. Understanding an area's capacity and regulatory framework for denser housing is key to readiness for grant funding and other subsidies necessary to developers. If a destroyed community was infrastructure-constrained prior to disaster, recovery might be the most effective time to increase and improve basic sanitary systems, as the Town of Paradise is doing with the Paradise Regional Sewer Connection Project.

The Paradise Sewer Project, it should be noted, had been studied for decades prior to the Camp Fire. The Town had gone to voters and nearby jurisdictions a number of times to determine amenability to a project of this magnitude. The Camp Fire was a catalyst for the project but certainly not the start of it. Understanding projects needed for a healthy vibrant economy in

advance of disaster, through mitigation planning or long-range planning, can prepare for recovery toward greater resilience and sustainability.

If a disaster is found to be caused by a corporation and settlements are levied, the determinations and pay-outs do not come quickly. For this reason, settlement proceeds may not be reliably and immediately available to finance permanent housing recovery. Settlement claims may also be overseen by attorneys who may advise property owners on when and how to sell.

When was Disaster Recovery Director in the Town of Paradise, a number of multi-family housing developers looking to purchase contiguous lots along main routes near downtown were turned down by property owners at the direction of their attorneys. The instruction was to hold on the sale of any property associated with their claim until it was settled. This stymied recovery for those who were not planning to rebuild on their lot but couldn't sell yet. It also stifled reconstruction for those looking to develop at scale. Ultimately, though settlement payments are necessary, they add a layer of timing to consider when evaluating resources available for recovery.

The Town of Paradise has seen a surge in manufactured housing installation over stick-built reconstruction, largely due to the affordability of the former over the latter. Communities used to a certain aesthetic may have strong opinions about the type of housing coming back. The availability of manufactured housing can be impacted by similar market forces as traditional construction, as supply can determine the timing of installation. It's not uncommon to see a manufactured house sitting on a trailer on a vacant lot for months while a property owner waits for the installation crew to be arrive.

In the months following the Camp Fire I was commuting along the same roads as the dump trucks removing debris from Paradise and the Upper Ridge. I'd see them lined up in batches of a dozen or more trucks waiting to cross the highway, removing the remains of the place I loved so much – homes, personal belongings, everything. On my way south in the morning I'd pass a number of manufactured homes heading north and know right where they were going. Modulars and trailers were also a regular sight. If you know what to look for, recovery is visible for hundreds of miles around a disaster site.

Understand Government Capacity

The ability of government to provide sustained response to disaster and the long-term recovery process requires understanding preparedness and capacity:

Q. Government capacity:
   - Has the jurisdiction most impacted dealt with disaster before?
   - Has the jurisdiction managed FEMA PA funding/projects prior to the disaster?
   - Has the jurisdiction managed CDBG prior?

- Has the jurisdiction been given administration authority over recovery funding?
  - Are the funds allocated or competitive?
- Did the jurisdiction have an approved Local Hazard Mitigation Plan at the time of the disaster creating eligibility for cost-share reductions and grant funds?
- Is there local/charitable flexible funding available to increase staffing that is non-reimbursable through grants?
- What office/department will centralize oversight of recovery planning, projects, funding, and reporting?
- Is there a pre-fire recovery plan, or desire to create one post-disaster?
- What percentage of government responders were victims of the disaster?
- What are general attitudes about local government in the impacted areas?
- What sources of funds will be used for recovery, and do any of those sources duplicate federal or State assistance?

Familiarity with recovery funding is important but not necessary for local governments to administer disaster grants. Local governments must learn as they go if they are new to disaster recovery. In many cases, I imagine, jurisdictions deal with small-scale disasters fairly regularly and have at least some framework of understanding for what it takes. I imagine a small storm surge or a fire impacting a block or two of a community. Large-scale disasters, however, those that are federally declared as they exceed local capacity and resources for response, do trigger the availability of funding not always present in small incidents.

It is important to consider that many first responders are also survivors. In the case of the Paradise Town Council, all five Council members lost their homes in the Camp Fire and had to jump into immediate action to make the emergency proclamations, establish urgency ordinances, and set up alternative facilities for Town governance. Responders who are survivors may have a higher degree of burnout as they are dealing with their personal trauma and the trauma of the people in their lives as well as responding to the needs of the community. Recognizing this from the outset and accommodating personal needs as well as professional needs is critically important. Having a trauma-informed approach with the workforce and volunteers, recognizing they are survivors, too, can create the safest possible space for recovery work to begin.

Evaluate Urgency Ordinances

Over time, I've come to think of urgency ordinances as necessary safety nets for stabilization and recovery. Urgency ordinances are the only local policies that create structure and define the timeline for a series of sequential and co-occurring events needed for recovery to begin, like debris and tree removal, allowable locations for log decks, and temporary housing

allowances. Understanding built-in levers within policy are essential to evaluating data that can illuminate their effectiveness and necessity over time.

Understanding the policy framework – the timing of allowances and limitations – and the roles assigned to compliance and enforcement, might include asking:

Q. Housing & infrastructure policy
   - Does the jurisdiction have a template urgency ordinance already in use or previously used?
   - Specifically, how do existing municipal codes and urgency ordinances differ?
   - How do urgency ordinances accommodate survivor rights inside and outside the burn scar?
   - Do State or federal emergency orders have to be layered in, i.e., drought, pandemic?
   - What are existing housing policies in and around the disaster impacted area?
   - What are the triggers for housing policy changes?
   - What are the pre-disaster policies and permits available for dry camping, RVs, and other temporary housing allowances, and will those meet the needs of recovery and reconstruction?
   - What elements of the General Plan will be affected by the disaster?
   - Does the jurisdiction have a Capital Improvement Plan and Design Standards?
   - What is the role of the Planning Commission in recovery policy?
   - What authorities does the zone administrator have?
   - Is there an adopted Climate Action Plan?
   - Does the jurisdiction have the resources to hire and embed a rebuild advocate in planning?
   - What was the role of code enforcement in the area pre-fire, and what does their case load look like post-fire?

Disaster planning – and/or, recovery planning – should include the identification of template policies that can be enacted in an emergency. Having urgency ordinances drafted to address immediate public needs like housing, debris and tree removal, can speed up the initial stabilization process post-disaster and clarify rights and abilities for the public. Knowing what elements of each Board-directed and/or regulatory plan can aid in recovery, is a good way to develop a hub and spoke model for plans to operate together.

Plans are often created during blue sky conditions. Working with consultants to ensure disaster response and recovery are contemplated as plans are developed and updated is one way to socialize the process of recovery, if not prepare for it directly. Many plans, like Housing Elements within General Plans, are mandated by the State in California. Those Housing Elements must meet certain criteria and standards, and outline required growth in various categories of housing stock.

When I arrived in the Town it was right on the eve of the Housing Element update which was a fraught but necessary time to relook at how to recover the loss of 89% of the housing stock.

Reimagining what's possible given infrastructure improvements planned during recovery can be contained within Housing Element updates. These planning processes which recur on a regular basis can be the most efficient way to build toward recovery preparation prior to disaster.

At any given time, the Local Hazard Mitigation Plan, the General Plan, the Housing Element, the Climate Action Plan, the Transportation Master Plan, the Community Wildfire Protection Plan, the Capital Improvement Plan, the Emergency Operations Plan – any of these planning processes can be ongoing. Recognizing these cycles of fine-tuning community planning as opportunities for disaster preparedness and recovery could be the key to including these essential functions in day-to-day work. Granted, many of these plans are led by different departments so interdepartmental coordination is the key to situational awareness and cross-linking outcomes and actions within the plans.

Understand Resource Types

For federally declared disasters, the field of disaster recovery is established by the time and locations in which disasters occur. A jurisdiction might be set up to compete for disaster recovery funding with a wildly different jurisdiction solely because disaster occurred in both at the same time. On the non-government side (NGOs), it may be helpful to scan local organizations for capacity and expertise to take on recovery roles, keeping in mind they may be tapped for response and recovery simply by the nature of the services they provide.

Speaking with disaster recovery professionals in Oregon following their major firestorms in the years after the Camp Fire, they experienced a crowded and overlapping group of local NGOs trying to establish their post-fire roles and responsibilities. This confusion led to hardship for well-meaning individuals attempting to find their lanes and gain traction with support and resources. In my opinion, avoiding this is likely impossible, but anticipating it with pre-planning might loosely assign roles that give everyone a place to start.

Framing out the availability of recovery resources could start with these questions:

Q. Disaster recovery resources
   - What other communities across the state were federally declared at the same time?
   - Will there be financial settlements for victims and/or responding agencies?
     - If so, what is the size of the Trust and number of claims?
     - Do the settlements carry tax implications?
   - What other local sources are available to rebuild, i.e., community foundations, charitable organizations?
     - Which organizations have the experience and capacity to scale quickly for response and recovery?
     - Are local organizations prepared to apply for and manage State and federal recovery grants?

- What is the timing of federal/State assistance?
    - Who is coordinating debris removal?
    - Which agencies are contracting tree removal? Are the debris and tree removal programs consolidated?
    - What are the duplication of benefits expectations of subsidized debris and tree removal for public and privately owned lands?
    - Who collects insurance proceeds for debris removal reimbursement?
    - Is there a match or cost-share requirement?
    - Is any settlement considered taxable and/or duplication of benefits?

Funding available for recovery comes in different timelines tied to specific uses. Understanding the differences between first-in money and last-in money will allow jurisdictions – and individuals – to avoid mistakes in spending that impact recovery down the road. Charitable funds can and should be considered the most flexible and may be specifically tied to gap funding where local matches are required for State and federal grants and/or to needs that are ineligible for other disaster recovery funding, like staffing.

After disaster, impacted individuals are in a heightened state of trauma and may not remember the flood of information coming their way. I say this because I observed my parents going through the process and felt their acute information overload. Misunderstandings about how to use funds in early recovery can be detrimental if not downright catastrophic to an individual or household as recovery progresses. Local public messaging can help fire survivors avoid financial mistakes if information from State and federal sources is available early enough.

That said, given the fact that fire destroys homes, it makes perfect sense that displaced survivors might utilize their first available resources to secure temporary housing. This decision can prove challenging later when in securing a government reconstruction loan they must "pay back" the insurance proceeds they already spent to qualify for the loan.

Before giving charitably on any scale, it is important to understand what documentation survivors must provide to qualify for government assistance which, in many cases, represents the bulk of the funding available for recovery. Charitable giving is well intended, but if the timing and mechanism of relief decrease an individual's ability to secure critical funding for reconstruction or long-term housing, those charitable funds may – counterintuitively – work against recovery.

Managing funding for recovery is a highly specific art of weaving together many different kinds of funding types. Avoiding duplication of benefits is probably the most critical pathway to maximizing resources for recovery. We are still dealing with this five years after the Camp Fire. Grant funding available for mitigation must not duplicate the good works done for free on private properties by vegetation management non-profits. The grants must be contemplated for entirely separate processes, and must not replicate funding for the same purpose that has already been spent on other needs.

Understand Individual Assistance

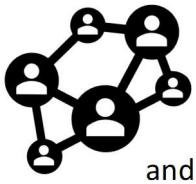
Focusing on individual recovery is paramount to understanding the availability and limitations of resources to rebuild or relocate, and some organizations are geared to do this specifically. Local government plugs in with Cal OES and FEMA in a federally declared disaster to provide access to personal information necessary for individuals to apply for aid, particularly if hard-copy information was lost to fire. If the disaster does not meet the federal declaration threshold, State assistance may still be available, or perhaps there is no funding available for recovery. These are critical pathways to explore and understand immediately after disaster as they have the broadest implications for how quickly and how completely communities and individuals can recover.

Supporting the individual starts with understanding:

Q. Individual assistance
   - Does the disaster qualify for FEMA Individual Assistance (IA)?
     - If yes:
       - How many IA claims were submitted by survivors versus funded?
       - Where is the Local Assistance Center or FEMA IA assistance center proximate to the impacted area? Is additional transportation needed to facilitate access?
       - What is the placement of emergency government housing in relation to the impacted area? Are FEMA trailers placed in impacted private properties or well outside the burn scar?
   - Are local organizations providing case management?
   - Is there an unmet needs roundtable attended/organized locally?
   - What is the timing of owner-occupied reconstruction programs?
   - Does the State plan for any rental assistance/subsidies?
   - What is the space count and capacity of RV parks within 100 miles?

Digging into the process of securing individual funding is essential for a government to identify barriers that can be removed. What will FEMA Individual Assistance not cover? Can that then be covered by charitable funds or grant programs? When are government loans and grants available for reconstruction and what strain will any delays place on displaced households? Because there is no centralized system of recovery where funding decisions are choreographed for perfect disbursement and seamless use, understanding the ins and outs of recovery funding for individuals may help reveal any gaps in resources.

In basic terms, a community impacted by fire that is underinsured will need a higher level of government assistance to recover. The likelihood that the deployment of government assistance is complicated by duplication of benefits is higher the more vulnerable and under-resourced a community is.



Assess Agency Coordination

Agencies, governments, non-profits, elected officials, membership associations, and the many other organizations involved in recovery all have different roles and responsibilities. The ability of these groups to pursue complimentary goals for the overall benefit of the recovering community depends on clear, transparent communication and coordination, and an understanding of public and private sector differences.

An issue I observed in early Camp Fire recovery was a blurring of boundaries between organizations. If organizations are collaborating to achieve the same mission, their messaging should coordinate. If organizations are attempting to achieve similar outcomes without communication, public messaging can be confusing for those seeking services or relief. As organizations find themselves in helping roles, while they learn their new duties and responsibilities, it is important to consider messaging and expectation-setting for larger audiences, including governmental agencies to ensure duplication and/or conflict does not occur.

It seems natural that individuals and organizations adjacent to a disaster-impacted community will want to respond. Here, it is critical to consider that ownership and leadership over recovery should lie with the impacted community, not represented by proxy. Determining ways to support individuals, governments, and organizations that have been directly impacted is better for community morale than standing in and/or replacing those services over the long term. Even the locations where meetings are held can be triggering for fire survivors. The closer the epicenter of recovery can be to the epicenter of disaster, the more likely it is that support and resources will be accepted and utilized toward recovery goals and objectives.

Evaluating and getting to know organizations and individuals who might find themselves responding to disaster or aiding in recovery could speed up and potentially bypass the initial "storming and norming" process of early recovery. These could include:

Q. Building trusting relationships with:
   - Federal and State tribes
   - Adjacent government officials
   - Federal and State elected officials
   - Federal and State lobbyists
   - Board of education and school districts
   - Utility companies
   - Property Owners Associations
   - Chambers of Commerce
   - Downtown Business Associations
   - Realtor Associations
   - United Policyholders / Department of Insurance
   - Special Districts – water, wastewater, parks/recreation, tourism

- Statewide county and city associations
- Land stewards, i.e., Associated Governments, Resource/Conservation Districts, Fire Safe Councils

Recovery is not conducted in a bubble or, rather, it shouldn't be. A big chunk of time in recovery is spent on advocacy which relies heavily on the support of elected officials at State and federal levels. There are constraints on individual recovery and constraints on community recovery; understanding those constrains and being able to articulate them up the chain is critical. Personally, I believe that if we can't change our recovery for the better, perhaps by making the barriers known, we can change the future of recovery for another community.

To the extent local governments, districts, and agencies can collaborate on emergency planning, mitigation planning, evacuation planning, and other critical efforts that can be documented and table-topped, the better. Even though jurisdictions are largely forced to manage recovery on their own given the ways in which funding is allocated, information sharing should be a central value to guide regional recovery. Specific to the Camp Fire, nothing pains me more in long-term recovery than discovering the Town is suffering through something the County can aid in, and vice versa.

Survivors can be difficult to reach after disaster for a variety of reasons. Relying on community organizations to message out critical programs and services is helpful, with a caveat to make sure information shared on behalf of a government agency is vetted and approved. Organizations that function to advise professionals, like industry associations and chambers of commerce, can be helpful while standing up recovery efforts, but again, messaging needs to be tightly controlled.

We're now several years into recovering from the Camp Fire and we still rely on trusted community organizations to aid in planning and programming. A barrier the State regularly faces during recovery is a lack of trust among the public, therefore, local community groups can be the facilitators for information sharing. An important caveat here is to avoid making promises and setting expectations on behalf of any other agency, organization, or government.

I learned early in my time as Disaster Recovery Director that the messenger will be vilified if information is false or guarantees are not met. I was the trusted voice of recovery and regularly presented updates to the Town Council on behalf of Cal OES and CalRecycle related to the Hazard Tree Removal Program. I'd receive updates on daily or weekly calls and I would present those updates as fact only to find out later major shifts were occurring in the programs unbeknownst to the Town.

As the voice, I would then have to navigate the questions and, in some cases, understandable fury. I remember being shouted at while delivering a presentation, then taking a break in the hallway only to be threatened by a member of the public. This frustration and anger at the delays and inconsistencies were fair, but as the person appointed to absorb it all, I found it very challenging. Thankfully our staff and elected officials were largely supportive and the weight was shifted and shared amongst staff during particularly heated topics and moments.

Emergency response systems like SEMS and NIMS have very specific protocol for communications. To the extent disaster recovery professionals can avail themselves of those emergency management practices, the more controlled public messaging can be. During the "storming" and "norming" phase of response and early recovery, it is very challenging to know which way is up with public communications, but reliance upon professionals who know how to control messaging is key.

SPECIAL DELIVERY

My oldest daughter's birthday is on December 31st and my grandma would send her a birthday card every year. Just after Christmas in 2014, after we'd spent the holidays with grandma doing puzzles in Chico, we got a call from Petaluma that her knee was hurting severely. The events of the next few hours are blurry but she went from an ambulance for her knee into heart surgery. I was on my way to Petaluma with my mom in the front seat and Adela in the back seat, ready to help grandma recover from surgery, when my aunt called and said she had died on the operating table.

I found a rare exit on I-5 and while my mom cried over the phone with her sister I pulled over into the gravel. I knelt behind my car and called my husband from my cell phone. He talked me through my hyperventilation and I got back in the car and delivered us to Petaluma a few hours

later. We spent several days in grandma's house with my aunts and uncles who'd flown in from across the country and sat together in mostly stunned silence and reflection, save for the kinds of arguments siblings have when an estate is at stake and no one is quite in charge yet.

We drove home to Chico in early January to let the dust settle and to get back to work and school. In our mailbox we found a birthday card for Adela from grandma, a thick pink envelope with a sticker on the outside. We wept as we read grandma's trademark cursive writing wishing Adela a happy year ahead. She never missed a birthday.

I heard similar stories from fire survivors after the Camp Fire. A friend arrived at his lot to find his house destroyed but his mailbox intact, a card from grandma waiting for the kids inside. The fire had blown right over it. It wasn't lost on me that the card we received at our house was from a grandma who was gone, and the card my friend received was from a grandma who was very much alive to a house that was gone.

When I worked for the Town, the mailman in Paradise was several decades into his career and still as dedicated as ever to his routes. With most of the houses gone now, he remarked how easy it was to find porta-potties when he needed them on the job, with several lots under reconstruction along his way.

I remember studying his face and the way he carried himself for any hint of trauma and I couldn't find a single one. He was proud, he was working, and he had to get back to his route.

We still rely on mail for recovery and emergency planning because many households in remote areas are underserved or unserved by broadband. We think about technological redundancy for emergency communications and about redundant forms of communication for day-to-day announcements and activities.

In many small, rural towns the tried-and-true method of putting up sandwich board signs at local grocery stores and community centers is often the best way to get information to the public.

RECOVERY SHUFFLE

Wildfire traumatizes a community all at once, leaving everybody reeling with shock and dealing with one another and themselves in a heightened state. There is no soft roll of trauma through a destroyed community, rippling gently from person to person, there is only one loud, sharp, invasive, explosive experience.

I have noticed in myself and others that even friends and neighbors with shared histories and companionable relationships can grow apart rapidly depending on how differently the fire impacted them. For me, I have carried a hard, heavy heart since joining the disaster recovery profession and have found it nearly impossible to relate to anyone who doesn't do this for a living.

I remember standing with a friend from junior high at a bridal shower in the Bay Area last year, listening to her talk about "pod'ing" up with neighbors through COVID, and feeling like I was a million miles away. The only thing I could think to share was how I spent the pandemic working in disaster recovery while experiencing another fire, but that didn't seem like proper party pleasantries so I kept quiet.

A co-worker at the Town expressed her extreme survivor's guilt upon finding her house still standing after the fire. Unable to celebrate and imagine her life without the people she'd lived around for years, she relocated to another standing home in the town to start over. On the flip side, friends who'd lived apart pre-fire RV'd together post-fire and wound up building their homes on adjacent lots to stay close.

To me, wildfire is a hand grenade thrown recklessly at neighborhoods, friendships, family structures, routines, traditions, everything. When people and places and things resettle after the smoke clears, they often reshuffle into new configurations. For example, a steep hillside lot with a great view of the canyon may no longer look as safe as it once did and will be expensive to insure, so a home is rebuilt across the street on a level lot looking inward from the canyon.

Property owners desiring more space and control over defensible space and vegetation purchase neighboring vacant lots to protect their reconstructed investment and their sanity. Ultimately, Paradise may end up with a smaller population than it had pre-fire, in part for this reason.

Friends of ours who resettled in Chico drove their kids to and from the high school in Paradise to keep them with their friends who were also being driven in from elsewhere. Paradise High School survived and was the only familiar space their kids shared with friends anymore. Their son starred on the football team after the fire and gave his family the chance to cheer for Paradise again.

My parents who had perfectly intact options for housing following the fire chose to remain in Butte Creek Canyon just down from Paradise even though the land's demands and their mobility are changing in inverse proportions. With each season, their property needs more from them though the majority of their trees have been removed or have fallen, often barely missing their house. The vegetation on their property grows on a rocky hillside behind their house requiring hand-cutting, hauling, and pile burning, otherwise they're surrounded by fuels. Their land lacks the shade it once had with the tree canopy, and after two rainy winters in a row the spring grasses are knee-high.

As I process my own experiences and get some distance from the fire, I am only just beginning to see the magnitude of pressure the Camp Fire put on our community to get along, get by, and get ahead in the aftermath. Relationships formed during response and recovery – trauma bonds – can turn intensely fraught as time goes by and circumstances change. Dependence upon one another during uncertainty can flip on a dime to mistrust and suspicion when there's no shared villain, which I observe as a result of soul-level exhaustion.

At the five-year mark, organizations and governments are dialing down or shifting their recovery staffing associated with the Camp Fire, perhaps for the last time, setting off a final wave of retirements and employment shuffling as the new normal sets in. I am not the only

local professional who has experienced one or more job changes since the fire – both related to fire and recovery. Many people I know have not only changed jobs but changed industries, jumping head first into the skill decline as I did.

After a major wildfire, everything churns for a good long time which is something I wish I'd seen coming. I might have given myself and my parents more grace if as I watched the flames bear down, I prepared for frenetic decision-making, sweeping life changes and reversals, friendships born and broken, and career upheaval. If I'd known what was ahead as the firefighters gained control and the emergency subsided, I would have entered the aftermath with greater preparation for the chaos that had only just begun, instead of viewing it in reverse and expecting the opposite.

PARADISE MAGIC

I've noticed two things happening as a result of writing this paper: (1) jotting down my memories allows them to loosen their grip on my mind; and (2) my grief is fading. For me, writing is the ultimate act of letting go – a literal shift of things lost in my mind to what can be found on a page.

This past week I attended a tourism strategic planning session at Melissa's house in Paradise. Melissa was the first friend I made when I moved to Paradise in 2008. She was on the Board of the Chamber of Commerce where I was hired as Executive Director, and took me under her wing as a former single career mom.

Melissa's property made it through the 2008 Humboldt fire but just barely. She lives in lower Paradise and arrived home to find fire retardant dumped all over her property and the fire line within view. She let firefighters shower and sleep in their guest rooms after slogging through long days and nights. I'll never forget Melissa calling to tell me her property had survived. I was standing on my mom's porch in Chico having evacuated Paradise a few days earlier with Adela. I was still brand new to Paradise but I cried with pure relief and joy for her.

Before the Camp Fire, Melissa's property was a stunning, sprawling estate. It had a Manor House she operated as a three-room bed and breakfast, the Rock House where she and her husband lived, the Pavilion where they hosted outdoor barbeques and events, the garage that held their classic car collection, an historic three-story watch tower held together by vines, a gazebo overlooking the pool, a cave with a dance floor and bar, a chapel where she decorated Christmas trees every year, a koi pond, a gate house at the front of the property, and a two-story barn next to the llama field. After the fire, only the chapel, the cave, and the pond remained, an eclectic mix of structures for Melissa to build her recovery vision upon.

Since the fire, Melissa has constructed three themed glamping tents overlooking the pond, a vaulted double-decker gazebo, and a two-story fire resilient home with an elevator for aging in place. On the slope leading up to her house on the day we visited, at least 100 mama and baby goats munched the wild green grass. At one point a tiny goat with a curly brown coat got stuck on the wrong side of the fence and stood crying in the field. Melissa grabbed a few volunteers and raced off in her 4-wheel-drive golf cart to the rescue.

Down the hill from Melissa's house is a brand-new steel-framed barn where her son is distilling spirits. On a tour of the distillery and tasting room her son explained that the last step in achieving their permit to open was installing parking spaces in the gravel lot out front. The heavy lifting was done and they are nearly ready for tasters under the twinkling chandelier.

Melissa explained they purchased neighboring lots for a total of 18 acres. Past the porch of the tasting room is a driveway and brick façade – the house behind it gone. It now belongs to Melissa who is thinking of building a restaurant and event space in the scenic ruins.

Up the hill off the gazebo is the pond where evacuated koi fish joined Melissa's fish during and after the Camp Fire. As we stood over the pond watching the fish eat, we saw two turtles swimming with all their might toward the sinking food, the koi spinning them out of the way. Catfish live in the depths of the pond and appear when there's food on the surface. Years ago, Adela would sit on Melissa's island and feed the catfish when she was no older than a baby goat herself.

Long before the Camp Fire, I knew Melissa could make magic. She had vision and saw her vision through. Now, walking her property listening to her tell the story of their recovery I felt like I was witnessing a miracle. Melissa's son explained that just weeks after the fire his mom began convincing him to move back to Paradise from out of state to open the distillery, his dream business. He was reluctant fearing there was nothing left in Paradise, but she eventually talked him into it. He and his wife and kids moved back to Paradise and together they've created something special because Melissa had the inspiration, the iron will, and the means to make magic happen.

I told my boss after the visit that it was the first time since the fire I'd been able to celebrate something new in Paradise without missing what it replaced. Many of Melissa's trees are healthy oaks and redwoods, but several others are weak and pained. The fire is visible and present in its quiet, constant way, but Melissa's own healthy resilience, her positive attitude, her sheer delight in her home and her property, the adventure she is clearly on in re-creating it, all add up to more than the fire took away.

Melissa shared on the tour that she and her husband had only to look at their property once after the fire left it stark and ashy to see it was enough. Nothing but blackened earth for miles around – and it was enough.

THEATER ON THE RIDGE

Adela has the same soft spot in her heart for Paradise as I do. When I worked at the Town as Disaster Recovery Director my dear friend, Judy, reached out and invited Adela to intern at the Theater on the Ridge. She gave her the title "Assistant Director" knowing how well it would suit her personality and motivate her to lead.

Judy runs Theater on the Ridge which was founded in 1975 and is the oldest non-profit community theater north of Sacramento. The theater has 101 seats and features a few shows a year. Miraculously, the theater survived the fire which happened not long after the building was paid off.

After school and in the evenings, Adela would drive up to Paradise to help at the theater. She'd just gotten her license so this drive up and down Skyway was a big deal. The play, the Wild Women of Winedale, starred a number of women just like Judy who had been acting for years. Adela became one of the ladies right away.

As the production got closer to opening night, Adela would dress all in black so she could scoot around the stage moving props and setting scenes without being seen herself. She learned how to work the curtain and on opening weekend we went up to see the play.

Judy gives the best hugs in the world. She has the warmest, strongest embrace – she hugs like she means it. After the play we visited with Judy before heading back down the hill. A few weeks later the ladies treated Adela to a bag branded with the show's logo and her name embroidered on the side, a wrap party gift. The stars of the show found me on Facebook and raved about Adela.

I moved to Paradise when Adela was three years old and by the time she was four I was seeking support for parenting such a strong-willed child. One of my mom's friends told me I had to grow faster and farther than Adela so I could always stay one step ahead. That advice never left me.

At five years old, Adela would lay awake at night in her pink canopy bed in Paradise and talk about "house practice." She had big plans to move into the vacant house next door with canned food and plenty of clothes so she could practice living on her own. She was adamant: without house practice she'd never be ready to move out for real which she longed to do. I'd sit and listen to her, exhausted from the day, wondering if other kindergarteners were making similar plans.

In those days, Judy always answered her phone for me no matter what time of day or night. She was my lifeline well after dark when Adela would argue with me for hours about what she'd prefer to be doing besides going to sleep. I'd pace on the lawn in the dark under that beautiful, mature shade tree in the front yard and Judy would get me through the moment.

We didn't necessarily lose touch after the fire but we didn't connect regularly outside of social media, so it was a blessing to have Adela work with Judy before graduating from high school and moving on. I had no idea when I lived in Paradise or even when Adela worked at the

theater how quickly her childhood was disappearing. Judy got to have her moment with Adela, Adela got to have her moment in Paradise, and I got to have my moment with Judy. It was fleeting but it was healing and it reminded me that love persists, just like the strong wills that make strong women who rebuild their lives.

THREE FIRE MOUNTAINS

Heidi looked over my shoulder a few weeks ago and asked why I was writing about the fire when it happened so long ago. To her, it was literally half a lifetime ago, to me it was like yesterday. I told her I needed to get my memories down so I could let them go and finally move on.

I asked her tonight what she remembers about the Camp Fire. She said she remembers her ears popping while we were evacuating. She remembers looking up at school that day and seeing the black sky. She fell down when she was looking up and a friend asked if she was ok. After telling me this story she paused and said, “I remember seeing three fire mountains in the background,” and then she left the room.

Because we didn’t lose our home and her school and our parks and grocery stores in the fire, Heidi was able to watch it from a distance. She felt the aftermath, though, her classroom and school changed overnight. Friends who lost homes in Paradise moved away, kids from the Paradise schools joined her class, Chico families left the area, kids left then came back years later. All part of the great wildfire shuffle.

After we evacuated to Sacramento the first night of the Camp Fire, Heidi and her cousin went to Lake Tahoe with my

parents to stay at my aunt's house away from the chaos. The air was thick and heavy with smoke even in Sacramento so they drove into the Sierras where the wind blew in their favor. The devastation in Butte County was catastrophic and there was nothing my parents could do by staying in the area. Information was trickling in and it was hard to know what was true. Over the course of the first week, they heard conflicting stories about their property and other nearby homes. Tahoe was a needed break from the fire which burned and smoked for another two weeks.

My parents did their best to make the trip feel like a vacation. They kept the mood light for their granddaughters who were disoriented from being swept out of their homes, schools, and community mid-week. I drove up to Tahoe to join them at one point and remember leaving the heavy smoke for the first time in over a week and being able to roll down my windows to breathe in fresh air. I pulled over so I could stand in the cool clean air and blue sky, a bit disoriented myself.

I'm not sure we could have handled the kids' experiences any differently. The fire was clearly visible from their schools and once we got them out of the community, we did our best to process with them in age-appropriate ways. I think I locked my grief up tightly until just recently when I started processing the cows, so I'm fairly certain life went on as best it could.

I've thought about Heidi's question a few times wondering if it is time to let go of the fire. I can feel a willingness to let go of the grief without feeling like I'm betraying Paradise, but I don't feel ready to let go of the fire itself. My job is to see disaster recovery funding through, so in many practical ways the fire still defines my working life. It is a memory I keep somewhat fresh in part to be ready for the next EOC activation, and in part to honor the reason for our work.

I am terrified of another fire hitting our county. We refer to intact communities in our wooded foothills as those that "haven't burned yet" as it's only a matter of time. I sincerely hope we're wrong about that. As much as we distract ourselves with the busy work of life, I feel another threat lurking around the corner. I think this has strained my peace of mind as much as the heartbreak itself.

Over the past year we have planted seven baby trees in our backyard: a lemon, pomegranate, ash, maple, mulberry, redwood, and oak. We didn't do this as a direct result of the fires as we added them one by one, but I have no doubt adding tiny trees to our lives is filling a hole in my heart left by the removal of all those giant beauties in Paradise.

I wish healing was a simple as feeling hurt from the fire, addressing it, and moving on, but it's not working that way. Instead, it's a layering of good things on top of new memories on top of mental and emotional efforts to move past these common reactions to trauma, in hopes the

cycle doesn't repeat again. I can only measure the depth of my grief by the volume of goodness I pour into it to settle it down.

Heidi has memories of three fire mountains bearing down on her school and that's all she wants to say about it. My hope for her is that even if she continues to experience these disasters, she keeps her joy, her positivity, and her ability to wonder why anyone would carry fire longer than they have to.

FIRE STORIES

My husband was reluctant to talk to me about his experience with the Camp Fire. It wasn't until I asked him about it for this fellowship that I realized we'd never really dug into it before. When the fire happened, we talked about the logistics of the evacuation and our kids' schedules and whereabouts, but never really about his decision to stay home.

He remembers three things from that day: the unusual direction of the wind, the speed of the wind, and the black smoke that came over Chico in a way it never had before. Adela was the first to alert him that something wasn't right. He ran outside to see the same smoke shelf she was seeing from school blocking out the sun like a fire eclipse.

I asked him why he isn't traumatized from the fire and he said he is in his own way. For days, weeks, even months he immersed himself in social media and the police scanner, consuming every piece of information as it was happening – right and wrong. At one point, reports said houses just east of us were burning but they weren't.

Looking back on our lives over the past several years I see the toll of his fight or flight.

After the kids and I drove away that night, he and our neighbor made a pact: as soon as one house in the neighborhood went up, they would grab our elderly neighbor and leave. As we drove toward I-5, he watered the lawn, the fence, the roof, the patio, everything. He could see flames over the rooftops in the distance. As soon as the sun set, the fire was unmistakable.

Our house is on a corner up the street from an elder care facility. He said at one point twenty ambulances blasted past on their way to deliver patients from Paradise. He counted twenty-four fire engines stationed in a hard line at the edge of a field up the street.

When I told him I was considering the job in Paradise after the fire he was concerned. I'd just gotten established at the organization in Sacramento and was now contemplating another change. Like many people, he was unsure about the viability of the town and didn't have much information to go on. Neither of us knew what disaster recovery would entail, nor did we have any inkling how many years I'd be involved.

I've written more than 100 pages of this paper and it hadn't occurred to me until now to ask Heidi and Rodney about their fire experiences. It's interesting to me that I talk about fire non-stop at the office and rarely at home. I think this compartmentalization is not uncommon amongst households still dealing with the aftermath to this day.

Rodney has been through a number of fires having lived in Chico his whole life. Fire recurred every 10 years or so in this area prior to the last several years when mega fires happen back-to-back-to-back. He says in all his decades here, in all the fires he's seen, the Camp Fire was by far the scariest.

Nearly everyone in Chico has a fire story. Many people who were not directly impacted jumped into volunteering as the fire burned, serving food, sorting donations. Certainly, everyone on the ridge has a fire story, maybe more than one. Our married friends evacuated with their kids separately without cell service hoping to find each other at the bottom of the hill. Somewhere. Anywhere.

I recently heard Jamie Lee Curtis is making a movie about a Camp Fire rescue. She visited Paradise not too long ago, and several Hollywood actors are attached to the film. The fire was five years ago but the story is fresh and important, especially now. That said, I'm questioning the significance and relevance of my own story as I write this. Does any of this really matter?

As I said to my fellowship mentors today, if I can shortcut any lessons and realizations learned the hard way in disaster recovery then I've done my job. If I can help a disaster recovery professional normalize the chaos and confusion then this was worth it. I'm certain not everyone will agree my family's fire stories are worth telling, but it seems the very essence of the human spirit following disaster to offer something heartfelt to those who are hurting.

HOMEMADE HOME

Before I moved to Paradise in 2008, I was a convention director for an international medical association headquartered in the Bay Area. Planning meetings and conventions all over the world meant a lot of travel – planes, trains, and taxis. On one memorable 9-day trip I had meetings in Seoul, Hong Kong, Kuala Lumpur, Singapore, Brisbane, and Melbourne. I started the job one week before September 11, 2001, and arrived to work that morning to find everyone huddled around a tiny plug-in tv on the conference table.

Our association membership was made up of medical doctors, medical students, physicians, clinicians, radiologists, technicians from nearly every country. Even the President of Harvard was a member at one point. My job as convention director was to plan and manage the logistics of highly scientific conferences including technical exhibitions that rotated between the east and west coasts of North America, Europe, and Asia.

Between 2001 and 2008, I planned a workshop on a cruise ship, hosted a meeting during a hurricane on a Florida island, and managed to pull off a conference in Brazil just a week after Carnival. In one ten-month stretch we moved a meeting from Barcelona to Berlin, cutting the planning timeline down by five years and two months. I've had food poisoning in some of the most exotic cities in the world, climbed the Eiffel Tower, and learned not to schedule a layover in Frankfurt any shorter than 2 hours. Because I walked the with confidence wherever I went, I've been asked for directions in almost every language you can imagine, which was less awkward than having to unpack my entire suitcase to find my ticket on a moving train in Austria, and getting stuck in a subway turnstile in Spain. My passport is a celebration of my early career.

I oversaw the construction of mini cities in some of the world's largest exhibit halls with subfloors, plumbing, electrical, overhead lighting, pipe and drape dividers, stanchioned coffee breaks, and two-story booths. These cities were made for big deals to happen between doctors and MRI technology manufacturers and equipment. I was very proud of that work – still am to this day.

Before relocating to Chico, I applied for a number of jobs in the area and was called back for an interview with the Paradise Ridge Chamber of Commerce. The Town Manager was on the hiring panel and the retiring Executive Director showed me around town. There was a written test as part of the evaluation, and many conversations. I got the job.

My starting salary was $36,000/year and daycare was just over $400 a month. In the Bay Area I was making twice as much and daycare was four times as much. The little blue house rented for under $800/month and our only other expenses were food and clothes. It all penciled just barely which was fine with me.

The Paradise Chamber had two other staff and many volunteers who worked in the visitor center. The volunteers had other pastimes and jobs including teaching square dancing, selling Mary Kay, and working at community events. Judy was the Chamber treasurer and took care of the books. Melissa was the Board Chair.

Before leaving the Bay Area, I'd just moved into a nice new office overlooking the Richmond Bridge and Mt. Tamalpais. At the Paradise Chamber, I looked out onto Skyway right across the street from Town Hall. A motel with a pool was down the street and a popular diner operated next door.

In the Bay Area, I commuted through the Caldecott Tunnel every day which, depending on which direction the third tunnel was facing, could take anywhere from 25 minutes to over an hour. In Paradise, my rental house was less than a mile away from my office and Adela's preschool was another half mile up from there. My commute was under 4 minutes.

Shortly after I moved to Paradise, the garbage truck forgot to empty the Chamber's can. I shrugged it off thinking it'd have to wait another week. Nope. My office manager hopped right on the phone, "Tom? Yeah, Tom. Bill forgot to empty the Chamber's trash again, would you please send him back?" I was flabbergasted. If your garbage is forgotten in the Bay Area it will stay forgotten. There was no Tom to call nor Bill to send back. In Paradise, there were people to call on a first-name basis.

I started my job in Paradise in February of 2008. The Paradise Chamber hosts Johnny Appleseed Days which is famous for its apple pies. The prior Executive Director took me over to the Chamber's storage to show me the games for the Johnny Appleseed Days children's area. I will never forget how I felt as that door raised revealing dusty, hand-painted plankboard games. I can only describe the feeling as deflation after many years of running expense international conventions. Soon, though, Paradise began breathing new life into my soul.

Where I grew up in the Bay Area, lawns were manicured, homes were well kept, and commercial areas were clean and tidy if not entirely brand new. I was used to a certain smooth aesthetic I didn't realize at the time was not the norm throughout rural California. Paradise introduced me to another way of life and another way of living. Paradise pre-fire was that rare and special place where the community was built and tended by the people who lived there. It was not mass produced by developers with enough capital to stand up high rises. Rather, as soon as the paved roads veered away from the main routes, they turned to gravel.

I am not ashamed to say I did not understand Paradise when I first arrived. More accurately and embarrassingly, my urban sensibility felt superior to rural life. Paradise was not filled with the sights and sounds I was used to: mass transit, international airports, 8-lane freeways, interstate junctions, and overcrossings. Paradise did not have nationally-reviewed restaurants nor internationally-renowned museums of modern art.

Gradually, though, the people and authenticity of Paradise grabbed me and pulled me in as the realest place I'd ever lived. I could see clearly that having a homemade town was the sum total of having absolutely everything. Once I saw that I realized two things: (1) people who live in connection with their community have a worldliness you can't get from traveling the world, and (2) my urban background is permanently affixed but I have a heart and growing aptitude for understanding rural life.

Ultimately, I decided Chico with a population of just over 110,000 people is the right size city for me in Butte County. I am close enough to everything I need for daily life, and not far from the places that make me feel whole, including big cities and itty-bitty communities. Fifteen years after leaving the Bay Area I'm part urban, part rural, and part mixed up. I delight in the slower pace of life but when I get intense, my husband tells me to "dial down the Bay Area."

I am endlessly grateful I got the chance to move outside of my urban comfort zone and to experience Paradise before the Camp Fire. It was a town long after its time which made it very much before its time; a community time capsule that has a lot to teach us about quality of life.

LIVED EXPERTISE

Recently I attended an evacuation planning meeting at a charter school in a small intact community in the foothills. The meeting was squeezed between long volunteer shifts of brush clearing and tree trimming to make the school safer from wildfires. While the volunteers ate their lunches our team talked with them about proposed evacuation routes and assembly points.

Hand-drawn signs were taped around the gym with safety notices and reminders about making eye contact with the operators of heavy equipment before walking into their path. A large fox was glued to the gym wall, made entirely out of juice bottle caps. As soon as the evacuation presentation was over, the air filled with the sound of tractors, diggers, fork lifts, chainsaws, and rakes as the volunteers loaded dumpsters with woody manzanita brush, drifts of pine needles, and ponderosa pine branches.

Most volunteers wore heavy work boots, hats, and safety vests and had their gloves tucked in their waistbands. One volunteer wearing thick leather chaps fired up a chainsaw right outside

of the door after giving us his feedback. I watched our consultant watch the crowd. He and his assistant had flown into Sacramento from Southern California to attend the meeting.

Understandably, the consultant focused on the maps printed on foam core standing on easels throughout the gym. These were the work product we'd hired his firm to create. He stood in front of the map and puzzled over whether or not the only road visible on the maps should be the evacuation route bolded in red, or if all roads should be printed but in light gray. He pointed to the "not recommended" caption above an arrow on the map and asked if I thought the map should actually say that.

I told him my evacuation story from the Humboldt Fire, about how while everyone else was gridlocked heading up the hill I blasted down a road I wasn't sure was open. I told him I understand the goal is to point everyone to the safest route, but not to the exclusion of all other routes if there is an obstruction or two. We talked about the road segments in Paradise that went from paved to gravel to dead-ends heading down toward the valley. I made sure he knew I was only expressing my opinion from personal experience, and that the Sheriff's Office and CalFire would know better.

Several times throughout the event I went outside to catch my breath from the heavy topic. These conversations are intense for me and they bring up strong feelings and memories as they do for just about everyone in Butte County. I take in a lot of trauma at work and I am slowly learning over time how to care for myself in the process. While I stood alone in the sun, the campus hummed with crackling brush and trees, and growling tractors rolling by.

As much as out-of-town professionals bring to the table, I often wonder if local volunteers bring more. In this case they brought heavy manual labor to increase school safety, and their lived experience and familiarity with the land. Importantly, they know the location of each locked

gate and which three people have a key. At the end of the meeting, our consultant told me he'd drive the "not recommended" routes so he could see first-hand what the community meant when they advised against them for evacuation. We told him to look out for seasonal waterways, gates, poor gravel conditions, private bridges, dead and dying trees, one-lane roads, homemade warning signs, all the things we know might block or slow evacuation.

I was impressed by the volunteer work at the school site and the fact that the group hung around to talk to us about evacuation. Without their local knowledge and insight, the maps might lack key information needed during an emergency. Our Sheriff's Deputy pointed out simple mistakes on the map to me. "We can have five proofreaders," he said, "and it's never enough." Every single detail must be precise and accurate on an evacuation map.

Third party consultants are necessary in recovery because they often come from outside of the area without baggage. They stay engaged in topics like evacuation planning without becoming emotionally entangled and bogged down by grief. It's fascinating to watch someone approach our greatest tragedy not by studying the community but by studying what a computer model can produce. There's tremendous value in the digital/paper approach, but if there's a reason the community balks at certain roads for evacuation we need to know why. Our consultant gradually realized that studying a foam core map is never going to reveal what a one-lane, private road will communicate to a curious driver in a rental car.

In much the same way I believe recovery can't be plotted out on paper, neither can a perfect evacuation plan. It is essential to shake out each and every possibility imaginable, and it's necessary to remain on tippy toes for the inevitable scenario no one predicted. The Camp Fire threw everybody for a loop because of how quickly it arrived in Paradise from its ignition point due to the direction and speed of the wind – both details my husband remembers to this day. Locals clock these details and use them to measure all experiences thereafter.

As residents, the environment teaches us only what we are willing to learn, only what we can pick up and record with our human senses. It teaches us about the speed of wind and the instability of mid-level moisture. It teaches us how to read variations in the arc and color of smoke plumes, the dangers of steep ridge fire acceleration, the risks of high fuel density, the value of response area conditions, and the reliability of assembly points. We can sense some of these things in our bones, and we can learn from our neighbors who have their eyes to the sky and their noses to the ground. Many people who build communities feel responsible for protecting them and, if they need to, for rebuilding them.

I have learned to place my trust in people who know the land, who tend the land, who can tell the moment the wind isn't right. I have come to appreciate that mass public transit systems in urban areas are meant to service large populations anonymously, so life can be lived beyond

the scale of community. If every non-profit office manager called when the trash wasn't collected, systems might not keep pace with the required load. Urban flow exists to keep crowds in motion across large spaces. Rural life allows for lived experience to drive community.

FAMILY DINNER

We recently invited housing professionals from across the county to talk to Rural County Representatives of California staff who traveled from their offices in Sacramento to meet with us. The meeting honed in on programs designed to restore housing after disaster and the myriad challenges of implementation. The three-hour meeting progressed like a symphony, with everyone moving through the chorus in unison. Locally, we share similar knowledge because we either experience the same challenges or work through them together.

Before the Camp Fire, the jurisdictions in Butte County operated like an archipelago, many islands untouching in the sea. Each city has a distinct personality and character and sits several miles apart. In the Bay Area, cities run together to the point where you never know exactly what city you're in unless you're somewhere in the middle. Los Angeles strikes me this way, too, with Imperial Highway moving easily from city to city to city to city.

The demographics in each community were also distinct pre-fire, with affordability and age differences being primary markers. Chico is home to Chico State which skews the population younger than Paradise which was known as a retirement community. The cities needed each other economically, but mostly functioned autonomously with little more than spheres of influence between them.

After the fire, the distance between the cities stayed the same but they grew much closer. Fire survivors moved into Chico and Oroville. Gridley hosted one of the largest FEMA trailer sites. Fire has a way of revealing unseen truths, and what it revealed in this case was a major interdependency between the cities for recovery. Those interdependencies aren't minor either, they are housing, infrastructure, recovery coordination, and healing.

At one point in the meeting with RCRC, as officials from each of the cities spoke around the table, I said, "this feels like a family dinner." I'm certain not everyone was entirely in lock step, but they were committed to hanging together no matter what. The city administrator for one of the smaller cities said his community would be lost without the County government.

The all-hands-on deck phase of Camp Fire recovery is over for the communities at large, but it is nowhere near over for the cities who are still navigating the same federal regulations and State programs. We can finish each other's sentences when it comes to certain frustrations and obstacles to recovery.

At the meeting, the RCRC housing intern looked so puzzled at one point I told him I'd seen that face many times during disaster recovery. Federally-funded houses built to hurricane standards in the wildland urban interface by the State's contractor who is only familiar with flood recovery? Affordable housing projects scored to solve urban homelessness rather than rehousing rural families after disaster? In recovery, we look puzzled all the time.

Every person in that room was familiar with hitting the same walls over and over. We are powerless to the agencies who make the rules and enforce them. We explain, we show evidence, we provide case studies, we compare the number of homes built against the cost of administering the home-building program, we spot dangerous trends, we identify barriers, we articulate very clearly what we need in nice words and in firm words and sometimes in words of frustration. We do all the things we can think of to make a difference when recovery hits a wall.

While recovery is a rocky landscape without a road, advocacy feels like jumping into a rushing river. When we've puzzled the advocates, we know we've described our circumstances well. They may never be as bitter or as angry as we are, but their arguments are made more powerful by our stories and testimonials. Working with our statewide associations on issues prevalent across rural counties is the antidote to discouraging calls with our funders. In fact, calling an advocate and getting a sympathetic ear is sometimes the only relief.

SYSTEM OUTPUTS

At the same RCRC meeting we talked about the design of each agency and funding source. W. Edwards Deming is attributed with saying, "The system is perfectly designed to get the results it gets." If we're enraged by slow progress, we should look at the system that created it because that's a direct outcome of design – or lack thereof.

I have no formal training in systems thinking but it's one of my favorite things. On Career Day during my senior year of high school, we discovered the entire student body hadn't been assigned to groups perfectly sized to move from classroom to classroom to hear from the professionals. I asked the office to print rosters of each class of kids – about 1,000 in all – and I had our Leadership Class take each roster and number the kids 1 – 30. We then put the 1s on a list, the 2s on a list, and so on until we had thirty groups of kids which matched the number of speakers and rooms we had for rotation. (This was before everyone had laptops and excel.)

In our County Leadership Academy a few months back, about thirty of us were asked to guide a member of our group across fabric dots placed on the floor in rows of 8 by 8. There was a correct path only the facilitator knew and he would "beep" when an incorrect dot was stepped on, requiring the stepper to backtrack correctly. We had to use trial and error to find the right

dot sequence to get the stepper across the room, and we had to rotate people with each failure, making sure every stepper succeeded.

As soon as I understood the assignment, I suggested we assign four dots to eight line monitors on each side of the grid to watch and warn steppers about their dots. Sixteen people stepped up and so did the noise in the room.

The line monitors got really good at their jobs, pointing out the only dot per row that was safe to walk on. Another member enhanced the system by suggesting each line monitor have a back-up monitor so the original one could rotate across the dots, which gave us a way to get everyone through. Gradually, we learned our jobs, perfected our system, and in a matter of minutes each person walked successfully across the dots without "beeps."

Disaster recovery doesn't work this way. First, the dots are unclear and no one really agrees on the objective because there are so many expectations. Second, there are a number of facilitators "beeping" with each wrong move because there's no single path to success. The grid can be crowded with steppers moving in all directions.

I learned early on in disaster recovery that there is no unified system keeping agencies, governments, and individuals in lock step through a coordinated, pre-planned process. Rather, it often seems there are competing systems operating within their own design producing outputs that are misaligned at best and in conflict at worst.

There are specific designs to each funding source we use for disaster recovery. There are volumes of regulations that spell out every detail of each unique design, and different agencies that interact with and interpret each design. For example, CDBG-DR funding comes last by design. It is meant to be last-in money when all other sources have been used or when there is a gap no other funds can fill. If DR funds comprised 100% of the funding needed for multi-family housing projects, for example, they might quickly construct housing units that increase community viability and the pace of recovery.

Current State policies require Camp Fire CDBG-DR funds for multi-family housing construction to fund only 40% of each project by design. Other funding sources which are competitive like tax credits and other subsidies are required to complete the funding stack to make a project feasible for construction. If competitive rounds of funding don't align with the expenditure window for DR, or project scoring prioritizes different resident types within each funding source, then projects don't achieve full funding. Without full funding homes don't get built. Currently, four of the County's nine multi-family projects are sitting in this position with significant funding gaps. If those gaps aren't filled, the County is at risk of losing the DR funds committed to the four unfunded projects.

You could say each agency and each funding source is working perfectly as it was designed. In fact, each program is monitored to ensure that it does. The trick is not in understanding the design of each, it is in resolving the policy differences, misalignments, and conflicts between them. This is the hard work of disaster recovery. If DR prioritizes housing for displaced families, but State tax credits prioritize housing for elderly and disabled populations, then the very same project is going to score entirely differently on each scale. By design, the project is meant to score well on one side and poorly on the other because the funding sources are meant to meet different population needs. If these are the primary funding sources for multi-family housing post-disaster, and they don't tie together, then projects are not constructed.

Is recovery designed to fail? Not intentionally, I hope, but I think it's fair to say recovery is not designed to succeed because it isn't designed at all. Legal action warned against a rural community almost entirely destroyed by fire is an output worth swimming back upstream to understand. There are a number of areas disaster recovery professionals can point to as evidence of design failures or design conflicts, and we document these in public comment letters on policy amendments. These are changes we can't make at the local level, and we aren't very successful to date in moving the needle at the State level.

From my vantage point, State programs are meant to solve common problems, not recovery problems. If most problems occur in urban areas where the density is, then solving those problems – or at least putting the money there – relieves the expectation of addressing rural issues. This could be true, or rural concerns are less understood and/or underprioritized for a variety of reasons including risk.

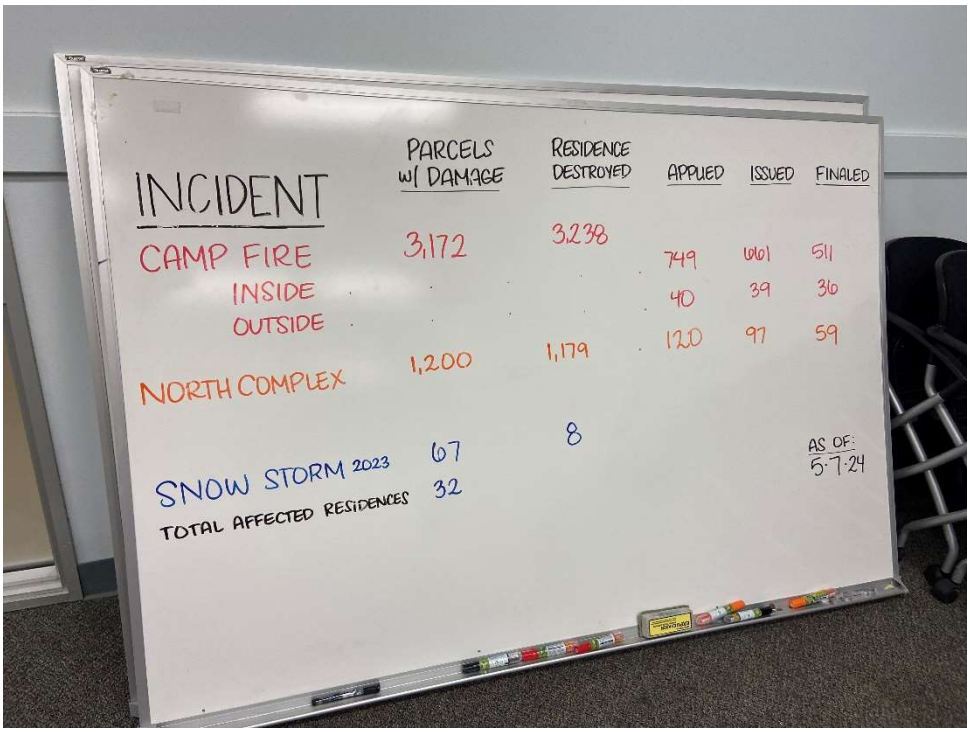
I wonder how to design recovery if we can't agree on a basic definition of recovery. If agencies managing funding meant to stack do not coordinate on environmental reviews, or if they communicate through a game of telephone with local government rather than with each other, or if they set expenditure periods that leave cracks large enough for conditional commitments to fall through, then recovery does not happen. In my experience, this is more the rule than exception.

I believe there may be a way to design a system of recovery if we reconcile even these points. Developing a common language, agreed upon terms, standard definitions, roles and responsibilities, system changes for close alignment particularly on the funding side – i.e., identical environmental review and eligibility requirements, with one approval process – could lead to a more cohesive, clarified pathway for communities and individuals post-disaster.

The Incident Command System (ICS) appears to function relatively seamlessly from the outside. Teams use phrases like "Type 1" to define a very specific standard of personnel and equipment. The language encompasses relatively basic terms to describe highly technical distinctions. Even

the weather report is refined with specific phrases adapted to describe the impact of wind, heat, and moisture on fire. Witnessing these systems work feels like watching a clock tick: predictable and steady. If these systems didn't work, fire would be managed by weather only, and who knows what scale of disaster we'd have on our hands.

This is not to say everyone agrees on a single, correct, strategic approach to fire response, but it is to say that there is a system that shakes out differences during incident management through the chain and span of command. This is not true in long-term recovery.



The phrase "too big to fail" comes to mind here because I often think wildfire creates problems that are "too small to succeed" in rural communities where attention is on the disaster and not on the aftermath and recovery. We know these challenges intimately and we want to wave our arms – and sometimes we do – to no avail because the systems are national or statewide and are not designed to focus on us. I wonder how a single recovery system could be designed when disaster impacts are so varied, but if disasters themselves are so varied and humans can develop an incident command system to manage them, then surely we can figure this out, too.

I believe there is not one single approach to disaster recovery that everyone would agree upon, but perhaps we could design a structure that holds space for those differences to be worked out as part of the process. I'm back to envisioning that table where all levels of governments sit, each with the proper authority to make decisions on behalf of their agencies, hashing out a design to support the process of recovery, while honoring the obligations on all sides.

In my early twenties I was handed the responsibility of negotiating multi-million-dollar contracts with international hotels for convention housing blocks. I learned during my very first negotiation that starting with what we agreed upon led more easily into compromise on the

things we didn't agree upon. I would recommend the same approach for recovery system design. I would go so far as to guess we agree upon 90% of the pieces anyway, it's the rest that gets us stuck.

If we had a recovery system designed to succeed, I bet disaster recovery professionals wouldn't feel so much rage. I bet legal action wouldn't be threatened, or if it was, the system would have a process for arbitrating differences before they reach that point. It feels like a giant waste of energy to lament the comprehensive failures of recovery when the individual systems are designed to produce exactly these results. On the same token, if we see the cracks in the system and we don't advocate for change, then we allow our communities to suffer silently by design. For this reason, Butte County is full of advocates.

I walked into Stanford University thinking we are recovering too slowly. Now I see value in digging deeper into the various systems funding and pacing our recovery. It's not for lack of effort or creativity on the local side, nor on the State and federal side. The disconnect might be mostly attributable to lack of familiarity with local conditions and the inevitable degrees of separation caused by geography.

Recently, I watched a State employee working on a mitigation program realize that by listing the federally-declared disaster that created funding eligibility on the flyer, non-survivors would not consider applying. Federal jargon that relates only to our fire survivors decreases program uptake by those not impacted, because most programs are only available to survivors. In rare cases where State programs are open to everyone in the county – like these mitigation grants – the language needs to broaden beyond the disaster.

The County participates in Emergency Operations Center trainings for staff who serve in the EOC if disaster strikes. These trainings emphasize the use of plain language when communicating during disaster. Plain language is important for the conveyance of critical information. Call signs and radio codes mean different things even between different cities within the same county. I think about the need for plain language in the disaster recovery field. Complicated acronyms for grants like FMAG, CDAA, HMGP, CDBG-DR-MHP, CDBG-DR-MIT-PPS, can be very overwhelming to a brand-new workforce who shows up to help. Even knowing what these mean and using them daily myself, I want to swat them away like pesky flies.

I scan emails from the State describing procedures for reporting on grant expenses and see that while they are technically correct, they are very nearly speaking an entirely different language than local government employees. When onboarding disaster recovery staff, I spend a lot of time in front of a white board drawing lines between agencies to show the flow of funds, and I list out these grant acronyms so they know where funding is coming from. A representative from a State agency told me it takes an average of four years to master federal regulations for

disaster recovery grant administration, which is a long time to suspend confidence on the job. Until staff speaks the language, it can be intimidating to ask questions let along converse in a meaningful way.

To show readiness for grant administration, staff are required to submit organizational charts and staff resumes as due diligence for the funder. The State is looking for acumen in administering federal disaster grants which is fair, but where does that skill set come from if not from a prior disaster? In a jurisdiction where disaster strikes once, say, staff will be entirely new to disaster grant administration from day one of recovery. In a community like Butte where we are dealing with multiple disasters, we certainly have staff with some experience, but the State appears to be looking for years, perhaps decades, of time spent administering these funds, when they are highly specialized and specific to a one-time incident. Thankfully, the State offers what they call Technical Assistance (TA) to guide staff through the grant administration learning process. Even grasping the concept of TA took me a beat. “Grant Administration Coaching” might be a better way to describe it in plain language.

On a coordinating call for the owner-occupied reconstruction program for North Complex survivors, our Development Services Director told HCD staff that their zoom backgrounds with neat suburban neighborhoods do not mirror our reality. I can’t say I believe that State housing programs work better in urban areas than they do in rural areas because I’ve only tried to make them work in rural areas. But RCRC staff did tell us during our recent roundtable that urban areas receive a disproportionally higher amount of housing tax credits than rural areas.

A few years into recovery from the 2017 fires and the State is proposing to shift funding from the Owner-Occupied Reconstruction (OOR) Program to Homebuyer Assistance and Multi-Family Housing Programs due to a lack of OOR applicants. The Homebuyer Assistance Program aims to relocate survivors into lower-risk areas for wildfire, into what I call “displacement housing.” The State’s initial goal was to assist survivors in recovering in place, allowing them to remain on their properties and in their communities in permanent housing. For a variety of reasons, survivors are reluctant to accept a loan or grant from the government, or they are ineligible for the funding due to spending their insurance proceeds on an RV soon after the fire. Unable to “reimburse” the State for the cost of their RV to qualify for a federal loan, these survivors are left without permanent housing.

Like the movement toward aging in place, wildfire recovery should aim for recovering in place. Converting owners to renters by adding multi-family housing stock to urban areas rather than single family homes in the burn scar, and incentivizing relocation to lower risk areas, cuts into a community’s ability to recover in place. Certainly, the cost of home ownership and maintaining insurance is too burdensome for many survivors post-fire, but government programs should adapt their criteria to what survivors need to thrive in place.

I've always suspected that the local hand moving the chess piece on the game board of recovery isn't working independently of the State and federal governments. We are constantly questioning and interpreting federal and State guidance to make sense of what's written let alone what isn't written. Are there too many disasters of different kinds to expect a tight level of coordination between government agencies? Without a system designed for success in place, yes. Are there too many disaster-stricken communities flailing through recovery without a lack of system and design? Tragically, yes.

Rationality, hope, truth, clarity – whatever we're after – lies somewhere between possibility and perfection. If we know communities are being left behind by programs that are abjectly failing in rural areas because they're designed to succeed elsewhere, then we are either accepting a permanent loss of our rural way of life, or we are enraged and calling our lobbyists. Neither option is sustainable, and neither option leads to recovery.

ON PAPER

In the foothills, many communities are served by one way in and one way out which makes agreeing on the primary evacuation route fairly straightforward. It's when we get to the dirt roads that words begin to matter. Initially, our evacuation planning team preferred, "not a recommended evacuation route," for the roads that have one or more impediments like lack of regular maintenance. This suggests the road can be used for evacuation but isn't a recommended route versus, "not an evacuation route," which signals to the public the road cannot be used in an emergency. One word might be the difference between life and death.

My mom escaped the Camp Fire by driving out of Butte Creek Canyon on a bike path. Currently, our evacuation maps do not list bike paths as recommended evacuation routes, but we know they're used out of necessity. Paper planning is a great conversation starter and necessary for broad public messaging, but can't possibly encompass all variables.

Listening to our Sheriff talk about Camp Fire evacuation, it is clear every feasible decision is made out in the field given the circumstances. With each passing moment fire challenges, limits, and compromises those decisions. In mitigation planning, there is great responsibility in documenting generalized expectations for the public so they have a place to start, but during emergencies the responsibility lies with first responders making decisions as quickly and accurately as they can. Residents in high-risk foothills should study the conditions of their surroundings as well as study any map.

When I worked in recovery for the Town I was contacted by a volunteer in a small, second-home community in the mountains above the Sacramento valley. Many second homes are

owned by people primarily working and living in the Bay Area. This mountain community is served by one form of ingress and egress bisected by railroad tracks.

The community volunteer heard the Town of Paradise was looking at installing an early warning siren system. The siren system was identified as a priority project in the Long-Term Community Recovery Plan. During the Town's feasibility study for the siren system, we conducted a community survey and I read through each of the 1,100 comments. The survey indicated a strong, favorable response for installing siren towers among current and displaced Paradise residents, referencing both the full communication systems failure during the Camp Fire and the speed at which the fire moved. Every comment was a survivor's story.

I was invited to present the project at a fundraiser for the installation of a siren tower in this Sacramento foothill community. My presentation covered the basics of the Town pre-fire, the Camp Fire maps, the results of the After Action Report on the communications system failure, and Town residents' current feelings about siren tower installation. Afterward, the volunteer told me she raised over $20,000 in that one event for the single siren tower they needed. I recommended a professional feasibility analysis, and that was the last we spoke.

It's fair to say disaster recovery is driven by the search for a permanent fix for fear. What is the one project, the one system, the one map we can create that will reduce risk and save lives. In practice, there should be layers upon layers of redundancy, duplication, back-up, back-up for the back-up, and whatever else works and is affordable. I could hear in the volunteer's voice that she believed it was only a matter of time before their community burned as well.

I grew up on a cul-de-sac in Moraga and never once thought about wildfire evacuation. It never occurred to me, and possibly to my parents, that we might need to make a plan to get out. We established a meeting point outside of our house because that's what we were taught in school, but we never talked about "go bags" or an exit route from the neighborhood. Even when I got my driver's license, I didn't think about whether I would escape through Orinda or Lafayette, or the Oakland Hills if I needed to. Moraga does not sit on a major freeway like many Bay Area suburbs, so getting out would always require going through somewhere else.

We bought our corner house in Chico one street over from the freeway a few years before the Camp Fire. I've thought hundreds, maybe thousands, of times about how glad I am that we live on a corner and can go at least three different directions to escape. I live in a constant state of readiness, and I wonder what that's doing to my peace of mind and if it will ever go away.

A few blocks over is a relatively new housing development with homes built on only one side of the street due to the narrow roadway. Residents park their cars on the sidewalk because there's not enough room to drive otherwise. Walking down this street I get chills thinking about

everyone trying to evacuate all at once. Cars would not be able to maneuver beyond backing out of their driveways.

I do not recommend living in fear, but I do recommend being prepared, and that's what evacuation maps are for. County stakeholders are reviewing decisions made for the old maps and folding in real evacuation experiences from the Oroville Spillway Incident which forced a mass evacuation of 200,000 people, the Camp Fire, the North Complex, all fires in the past and the fires we think about for the future.

LONG GOODBYE

The funny thing about grief is you can grieve the eventual fading of grief itself, grief for the connectivity of sadness and loss. In the first years after my dad died, I'd wake up in the morning and be surprised when I remembered he was gone. Every once in a while, I still feel a compulsion to call him when I think he won't believe what I have to tell him. For the most part, though, I know he's gone and that loss is part of life.

Losing Paradise felt similar. In the days after the Camp Fire, I'd wake up in the morning and hit a wall of pure shock. There was no gradual acceptance over time, but a daily realization striking me in my bones. I felt the full weight of it on my skin when I thought of each and every person affected, including my parents, that pressure tightening like a vice.

Learning about my nerve disease, I know there's a physiological reason my feelings show up on my skin. The myelin sheath covering my entire peripheral nervous system is unraveling leaving my body more vulnerable to sensations like heat, cold, and pain. When Adela was in a car-jacking at nine years old, my skin felt like it was on fire for a whole year. Not just a faint sensory experience; I remember rubbing my arms daily trying to numb the constant pain burning an inch deep.

Stress shows up in my ears, too. If you've ever heard the distant sound of a rock slide while camping in Yosemite, stress can sound like that: a gradual rumbling hinting of danger. Commuting with the debris trucks to and from our area, I'd hear this rock slide in my ears with the windows up and the music on.

Thankfully, the pain on my skin and rumbling in my ears is easing up. It's becoming something that starts and stops on occasion, rather than something I experience chronically. I credit this partly to the passage of time and also to the fact I don't want to be on this emotional journey anymore. My nerves need a rest.

The beauty of working in long-term recovery is a gradual distancing from the trauma response, and the ability to see it for what it is so I can make choices that protect me. I know which calls,

meetings, and experiences are going to upset me before they happen now, and I either prepare myself or minimize their duration. Though I can't totally turn off my trauma response, I know how it shows up which somehow makes it easier to bear. I wish I had a calm, cool, unrufflable demeanor but my hands shake, my voice quakes, I have less patience, but I know why it's happening so I give myself grace.

I've come across plenty of people who exhibit a trauma response when we talk about the fires. Depending on the topic and the time we have together, it can last a moment or a whole meeting. I also watch consultants grappling with the trauma response they get from their wildfire-impacted clients. Like most people, they lack the language and framework for acknowledging it. I hope for communities impacted by wildfire in the future that trauma is a known, seen, cared for silent partner in recovery, rather than the elephant everyone stares at in the corner.

Similar to how the visceral memory of my dad is fading, so is my memory of Paradise before the fire. Now when I'm on the ridge, I don't expect to see anything but what it looks like now, and with the fire debris slowly coming out, I have less reference for what it used to be. Rather than the skeletal trees reminding me of the great forests, now there are fields and stumps and wildflowers and vistas. Shortly after we sold my dad's house, I drove by half expecting him to be fiddling under the hood of his car in his driveway. Now when we drive by it looks like somebody else's house with a few markers of the past like the tree he planted and the sidewalk stone he pieced together in a puzzle.

I feel resistance to letting go of my grief for Paradise because then maybe I'll lose my memories completely. The grief keeps me tethered to the life we had for that brief moment in time. But I'm exhausted by the buzzing on my skin, the shortness of my breath, and the sound of sadness filling my ears. I don't want to live at the mercy of remembering a place that isn't here anymore when it is changing every day. Fire, aftermath, recovery – none of these are static conditions, nor should my mental state be.

Recently I created a giant spreadsheet of all the grants we manage in our division at work. Out of more than 50, all but 8 are related to federally declared disasters: 2017 Wind Complex, 2018 Camp Fire, and 2020 North Complex Fire. A handful are related to COVID but those are phasing out this year and next, whereas Butte County will be monitoring disaster-funded multi-family housing projects for several decades. Some of our "tasks" in the grant portal are due in 2051. So, while I work my way into an emotional place where the edges are less sharp both from the fire and the recovery, the thought of it literally fills my days so I have to do both. Signing up to work in disaster recovery means signing up to live with disaster for a long time.

NTP	Disaster Infrastructure	SCOR Plant Upgrade	CDBG-DR (18-DRINFRA-18001-00020)
Application	Disaster Infrastructure	Facility - Gridley	CDBG-DR Infrastructure
Application	Disaster Infrastructure	Facility - Paradise	CDBG-DR Infrastructure
Application	Disaster Infrastructure	Facility - Oroville	CDBG-DR Infrastructure
Application	Disaster Infrastructure	Road Reconstruction	CDBG-DR Infrastructure
NOI	Disaster Infrastructure	Road Reconstruction (FEMA PA Match Only)	CDBG-DR Infrastructure
Awarded	Disaster Mitigation	Evacuation Planning	CDBG-DR (17-MITPPS-21001)
Awarded	Disaster Mitigation	Code Enforcement - 38A	CDBG-DR (17-MITPPS-21002)
Awarded	Disaster Mitigation	Fire Protection & Prevention Education	CDBG-DR (17-MITPPS-21003)
Application	Disaster Mitigation	Broadband Planning	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Fire Protection & Prevention Outreach/Education Expansion	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Fire Protection & Prevention Code Enforcement Expansion	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Foothill Rebuild Barrier Removal	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Older Adult Housing Support	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Rural Water Safety	CDBG-DR MIT-PPS
Application	Disaster Mitigation	SERVE Access Function Needs Training	CDBG-DR MIT-PPS
Application	Disaster Mitigation	EOC Capacity Planning	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Emergency Operations Plan	CDBG-DR MIT-PPS
Application	Disaster Mitigation	Roadside Fuel Reduction Plan	CDBG-DR MIT-PPS

Resilience isn't a foregone conclusion after disaster. Wildfire creates wreckage, and resilience doesn't magically appear at the wave of a recovery wand. The more I search for resilience in myself and the recovery field, the more I see it as wholly separate from recovery, driven by different causes and effects. Resilience is a choice to interfere with the natural order of things by using tools that lead to outcomes that do not match the past.

For me, achieving a resilient mindset means having equal or greater curiosity for the joy and triumph in recovery than the damage and devastation. The slog of long recovery does not offer much room to explore joy and triumph when community reconstruction moves at a rate of 3% per year, so interference is necessary. Resilience requires saying goodbye to grief so I can imagine a future that does not look like the past.

RIVER CROSSING

I imagine someone might read this and wonder why anyone would spend five years grieving a town. If I'd never seen something like this happen, I might wonder, too, because while we've been grieving, everyone else has been living in their towns, cities, metropolises, crossing bridges, riding elevators, walking to the park thinking nothing about it. I remember living like this before I knew whole towns could disappear.

In March of 2024, a cargo ship hit a bridge in Baltimore and it collapsed into the river and onto the bow of the ship itself. In California, this meant round-the-clock news coverage; over and over the bridge collapsed on television screens lining the gym walls for several days. I heard a newscaster say the city would be recovering from this incident for several years. She said it in disbelief, as if she was reading a script she didn't quite believe.

Instantly after the collapse, elected officials called for a congressional appropriation of federal funds to fully reconstruct the bridge. I am not close enough to the event nor do I watch the

news enough to know if this will happen for the Baltimore community, but I am certain the bridge will be rebuilt for how much the city relies upon it.

The economic impact of the bridge collapse was immediate: the port closed temporarily and a major connection between two points in the city was gone. The city will find new avenues for commerce and traffic, but the lives lost are irrecoverable.

I can't watch images of the Twin Towers falling on September 11th, I can't watch videos of the Camp Fire progressing, and I can't watch the bridge falling with the twinkling lights of construction work on the closest span to the ship. It's amazing to me that we don't notice the impact of repeating disaster imagery on our consciousness, even a looping news clip. I don't have whatever toughness it takes to absorb these tragedies on repeat, perhaps because I know the long walk of recovery.

In my former life, I commuted over bridges in the Bay Area. My first thought upon seeing the Baltimore bridge collapse was: where will this happen next? It's hard to see something like this as an isolated incident when cargo ships pass under bridges all over the world every day. That said, a bridge collapsing happens so infrequently it makes national news, yet it makes us wonder about the likelihood of it happening again in our lifetimes. We question this after disaster because what we really want to know is: am I safe here?

When the impossible becomes a reality through the images of tragedy befalling another community, we tend to tighten the bolts and screws under our feet. I'm fairly certain public works teams across the country checked on the bridges they operate and maintain the morning after the collapse. I imagine crews inspecting the engineering of each span to identify weaknesses they may not have seen nor thought to look for before. There are often warnings before catastrophic infrastructure failures like the Oroville Spillway. Perhaps seeing a national disaster unfold shakes the dust off of what no one wants to talk about but must.

In the same way we say, "hug your kids tighter," after a tragedy, we should check our bridges, our dams, and our buildings when a structural monument is tested or lost elsewhere. We should turn fresh eyes on overgrown brush after fire. I'm sure thousands of people working in high rises wondered about the ability of their buildings to withstand airplane attacks after 9-11. And today, ship crews are probably measuring the height of their cargo differently and perhaps testing their back-up power systems more frequently. These incidents are good reminders to mitigate risk.

After the 1989 earthquake, I regularly imagined another "Big One" happening while I was crossing the Bay Bridge. The new span is gorgeous with steel bars fanning across like permanent outriggers, perhaps designed to create confidence in human engineering following the quake. I can hear these design meetings: look, we sit on a major fault line and have a

responsibility to instill confidence in generations to come with a strong aesthetic. At least I hope these conversations occurred – that someone thought about how crossing the bridge would feel to a whole region with post-traumatic stress.

If the agency in charge of reconstructing the Baltimore bridge uses federal funds it will take some time. Federal funds are not fast, free, nor flexible. If the cargo ship company is found liable for damages, that may increase and complicate the resources available for reconstruction. Once material sums of money are discussed, the public will have an expectation of government to replace the bridge quickly. It's a fair expectation because in our private lives, lack of access to money is often the primary barrier to recovery. In the public sector, counterintuitively, access to money can in fact be the greatest barrier to recovery by increasing cost as a result of the federal regulatory requirements choking out other funding sources. Someone will be behind the scenes making those budget spreadsheets tie out.

Some Baltimore residents may call for an exact replica of the historic bridge design, others will call for resilient infrastructure no matter the design. There's an owner of the bridge on paper, then there's the public who don't know the skyline without it. Looking across the river without the bridge is probably disorienting, like the absence of the Twin Towers on the New York skyline.

I hope the public and various levels of government in Baltimore come together to rebuild the bridge with a single, unified plan. I hope solicitations flown for construction using federal disaster grants are not contested. I hope materials and labor are readily available and provide opportunities to the local workforce. I hope the design finds middle ground between historic and resilient if they're at odds, and the new bridge becomes something the city can embrace as an iconic fixture. I hope those on the cargo ship and on the rescue teams seek and receive help for their experiences. I hope the families of those who passed are honored throughout the reconstruction process.

Finally, when the bridge is fully reconstructed, I hope the people who are part of the project feel proud of what they've accomplished. I hope when they transition to other jobs they do so peacefully, and this section of their lives doesn't overshadow the next. I hope the community crosses the bridge for the first time together when it reopens. I hope Baltimore recovers fully and doesn't have to recover from recovery itself.

LAKE PILLSBURY

One Sunday in October of 2016 my sister called and told me she was pregnant with her first child. She lived with my dad in Petaluma and as I paced in my backyard in Chico listening to her, I couldn't be happier. That Thursday evening my dad called with news of his own. With another

grandbaby on the way he decided it was time to finally get sober. After many years of fits and starts with sobriety, he was following the advice of a friend and taking himself to the Emergency Room that night.

I took the next day off of work and drove down to help my sister help my dad. At the Emergency Room the night before he'd been given a prescription for detoxing at home and a referral for an in-patient treatment center. Because it was the end of the week, he'd report to the treatment center on Monday morning for an intake consultation. He was released from the ER and sent home for the weekend.

When I arrived in Petaluma that Friday morning, I loaded him up and drove to the hospital pharmacy in Santa Rosa where we picked up his prescription. It had been a few weeks since I'd seen him but I was surprised by the way he leaned onto the car and talked nonsense to me, looking me straight in the eyes. His texts leading up to that day had turned into letters and numbers meant to convey brief pep talks. I remember sitting in a work meeting and hearing my phone buzz 16 times as each letter arrived individually.

The pharmacist that day was specific about the rules of home-based detox but assured us we'd be fine. We took the pills back to his house, separated them into daily doses according to the instructions, and dad was set for the weekend. Looking back on this now, I remember feeling that same push-pull I did when driving through fire about dad detoxing at home; one foot on the gas pedal, one foot on the brake.

Later that afternoon, consistent with his declining behavior, dad began hallucinating in his bedroom. I'd later learn these were lucid dreams which is the only sleep he got toward the end. We did not feel confident in our ability to care for him so we took him back to the Emergency Room. When the doctor came to talk with us, he asked my dad how much alcohol he consumed each day. My dad made a couple of jumbly jokes then said two quarts of vodka before pausing and grunting it was usually three. Three quarts of vodka. I was shocked.

They admitted him for observation because he was neither coherent nor able to get himself around very easily. I sat next to his hospital bed and watched him sleep behind the oxygen mask feeling a sense of wary relief. I hoped they'd keep him in the hospital until Monday morning when we could get him into the treatment center.

Feeling like I could exhale briefly, I went for a walk around the hospital and watched the sun set. I called my uncle, my dad's younger brother, who was home in Santa Cruz with a stomach bug and told him what I'd learned at the hospital. When I got back to the waiting room there was my dad, sitting alone in a chair wearing gray sweatpants and a shirt, hands on his knees, grinning like he was waiting to be picked up from school.

I was flabbergasted to see him and walked over to the nurse's station and asked why he'd been released. They told me they'd checked him out and there was nothing they could do for him there. "But…" I stammered, "he can't sleep without the oxygen mask, can he at least stay for that?" They told me no. When he stood up to walk to the car, he'd urinated down the front of his clothes and I wanted to turn around and shout, "do you see what is happening here?!"

In the car ride home, he gazed out the passenger window and ordered a pizza into the cool night air. He asked for extra cheese, extra sauce, and mushrooms on thick crust, pausing now and again for his signature chuckle. My sister's boyfriend who was driving the car looked at me in the rearview mirror and we shook our heads. Dad had been hallucinating for months because of the alcoholism so this wasn't new, but we were not equipped to handle it.

Once we got dad home and back into bed where he continued to call out various names, my sister and I agreed on a short-term plan for the round-the-clock care he clearly needed. She'd be there that night while I drove home to pack for a week then I'd be back the next day. That night my husband held my hand as we lay in bed together. I'd said during our family camping trip in Lake Pillsbury just 4 months earlier that I didn't think my dad would live past the end of the year, but here I was, hovering in the rare sliver of hope children of addiction allow themselves to visit when there's good reason to believe change is coming. We had two days to go before he'd be admitted and on the road to recovery.

The next morning while pacing in my driveway I called the treatment center to see if they could get him in earlier. They told me they couldn't but once I described the hallucinations, the visions, the weeks of sleeplessness, the physical downward spiral, they told me he was nearing the terminal stage of alcoholism. They assured me they'd be there to help when we saw them on Monday.

I hopped back in the car toward Petaluma and was an hour down the road when my sister called, panicked and hysterical. She said she was at the neighbor's house because dad's legs were kicking violently and she'd called an ambulance. I tried my best to calm her while concentrating on the only curvy section of I-5 heading south through Arbuckle. I told her he would be ok, help had arrived, he needed to be in the hospital and this would get him there.

My sister fell quiet while I drove and I heard her listening to another voice in the room. Suddenly she was screaming, "he's dead!" over and over. Hyperventilating now myself, I pulled over while I heard the paramedics, her boyfriend, the neighbors move in to console her. My world was spinning.

When I was able to get back on the interstate, I called my uncle who was getting in the car now himself, sick or not. I didn't realize I'd missed my turnoff for the Bay Area until I reached Sacramento, and even then, I had to pull off the freeway to figure out east from west.

Short lived as it was, my dad died with recovery in his heart which has come to feel like a gift. Only when I sat with him and the Chaplain a few hours later did I feel the powerful absence of his addiction. It left him when he left us, and I know he is at peace.

Mendocino Complex Fire, July 27, 2018 - January 4, 2019

When my dad was little, he and his family spent summers in Lake Pillsbury. My mom and her family did as well. She is the second of five children born within six years. My sister and I arrived 17 months apart and my parents carried on the tradition of going to Lake Pillsbury for long weekends in the summer. Even after they divorced, they'd still go up to Lake Pillsbury, my mom in June and my dad in August, gradually aligning their vacations until we were all up there at the same time.

My 19-year-old daughter was six months old during her first summer trip to Pillsbury; my 11-year-old was nearly one which means the year before I braved the heat and dirt nearly nine months pregnant. Pillsbury is not an easy place to take kids but it is the best place in the world for kids. To this day, both sides of my extended family go to Pillsbury each year: all of my mom's siblings, their spouses, their kids, their kids' kids, even my dad's brother comes up on occasion. My grandparents would make the trip when they were still alive, walking down the rocky path to sit and watch the kids swim from the Liar's Bench. My mom's oldest brother and his sons fly across the country to drive that rutty dirt road to our family's version of paradise.

Lake Pillsbury is a man-made lake behind a hydro-electric dam owned by PG&E in Lake County, California. Boaters tow skiers, tubers, knee boarders, bare-footers, anything a boat will tow. My Uncle Tim loves to putter his tiny silver fishing boat out onto the lake in the morning when the mist is inches off the surface. My Uncle Tom bought my dad's ski boat and captains the tube and wakeboard crews now, taking the torch from Uncle Matt who doesn't bring his boat up anymore.

From toddlerhood through my early teens, I spent the first two weeks in August in Lake Pillsbury with my dad, then we all shifted to the last week in June to match up with my mom's family. Dad would load his boat to the brim with camping supplies and frozen barbecue meat, then tie the whole thing down in tarp so the dirt wouldn't cake onto our tents, sleeping bags, and food. My sister and I loved to sit in the back of his pick-up as we bounced and fishtailed over miles of gravel to the lake. Pillsbury was my dad's happy place.

I had crushes at the lake, brought my friends sometimes, eventually boyfriends, my husband, and my daughters. I grew up at the lake. Just this morning Heidi pulled out the Pillsbury list to refresh it before we start packing. I watched her erase something and told her the list doesn't need to be perfect because Pillsbury isn't perfect. She said, "Mom, Pillsbury is the most perfect place there is."

The Mendocino Complex Fire started just one month after our family vacation in 2018. I'd sold my dad's house in 2017 during the Tubbs Fire in Santa Rosa which halted any new insurance policies in Petaluma for a time, delaying the close of escrow. Now, we watched in concern then alarm as this new fire moved closer to Lake Pillsbury. We'd seen a handful of close calls over the years but this fire came on the heels of the Tubbs Fire and struck real fear. The era of the mega fire had begun.

My parents, siblings, uncles, aunts, cousins – the whole crew – starting calling and texting each other as the fire grew. We watched the fire map push up toward the lake through the forests we'd driven through for decades. The fire widened and lengthened almost as if reaching for Lake Pillsbury which it eventually did, touching down near the Rice Fork on the back side of the dam.

There's a point when a fire is burning close to everything you love that you begin bargaining. Take the forests, the hills, the mountains, we thought selfishly, but leave the cabins, the general store, the old wooden trout signs, the rope swings, the Liar's Bench. The owners of the cabins and marina posted updates of firefighters camping in our spots, tired, dirty, worn. The fire ringed a portion of the lake but left the cabins and our precious memories intact. Our bargaining had worked but we had yet to take in the full extent of the destruction, realizing once we did that Lake Pillsbury isn't complete without its wilderness.

And while we held our breaths for Lake Pillsbury, the Camp Fire destroyed Paradise.

All I could think while portions of our favorite place in the world were burning was how shocked and devastated my dad would be. Equal to our grief for him would be his grief for that lake. When we poured his ashes into the Rice Fork from the back of his boat in 2022, finally ready to let him swim with the fishes, we did so amidst a backdrop of blackened trees.

There's grief for places lost to fire and grief for places that are bound to burn. Lake Pillsbury is one of those places for me. It is home to the happiest childhood memories of generations of my family, the burial site of my dad, the place we all want our ashes spread, too, and the center of my soul. Every year now, in this season of fire after fire after overlapping, layering, suffocating, life-erasing fire, I say goodbye to Lake Pillsbury knowing it may be the last time I'll see it before it burns. PG&E is decommissioning the dam and selling off many of their hydroelectric facilities, likely due to the settlements and lawsuits stemming from utility-caused wildfires. Their plans to remove the dam don't break my heart like the thought of fire coming for Pillsbury.

Someday in the not-too-distant future Lake Pillsbury will likely be drained. The rivershed will slowly recover its natural shape and size. Wildlife will adjust to the changes in their wet lands, and the elk herd may travel from their flooded meadow under Hull Mountain to another site up

river for food. Any homes that derive their value from the lake front may be left unoccupied until the viewshed is restored, or those families will adapt like ours is adapting now.

If the lake returns to a river, our little resort will be left high and dry. The owners who operate the business may end their lease with the national forest. The cabins and bathrooms may stand for a while, they may burn before then, or they may be kept up by a proprietor with a different vision. We don't know. As sad as this unknown is, I like to think the trees, brush, and wildlife that lived in the watershed before the lake was created may prefer the river anyhow. Time may transform our favorite area into something unrecognizable to us but very familiar to nature. This is what I say to my mom every time she cries about the lake.

The thought of losing Pillsbury to fire, however, is unbearable. It's a threat of erasing not only the fun we've experienced but the tie that binds our family together through divorce, illness, death, marriage, childbirth, and everything in between. For me, it's the alternate universe in which my parents co-existed in peace long after their differences drove them apart in the real world. Adela's dad camps right across the way from me and my husband, and eats dinner with

us every night. Pillsbury is a magic glue more powerful than any division humans create between themselves, and offers itself up as the only place these memories can be made.

We've talked about finding another spot to spend time together each summer but so far these conversations have not materialized into any plans. Nobody wants to let go of Lake Pillsbury until Lake Pillsbury lets go of us.

For now, we will continue writing our list in April, start the piling and packing in May, then caravan up to the lake in June. If fire ever gets there before we do, we'll have memories that last our lifetimes and the lifetimes of those who came before us that now settle as sparkles at the bottom of the lake.

Fire or not, Lake Pillsbury is changing right before our very eyes, disappearing one way or another. I pledge to love it no matter what, just as it has always loved us.

RECOVERY RELUCTANCE

In April of 2024, I attended a celebration honoring the bravery of victims of crime in Butte County who'd been assisted by the District Attorney's Victim Assistance Bureau. As each survivor was honored, the speakers mentioned their personal recovery as an essential part of their ability to thrive today. For some, the recovery was physical from a car accident or attack. For others, recovery was emotional and required deep perseverance. Each person had a recovery story and it was incredibly moving.

As I listened to the speakers I wondered about my own recovery, and why I hadn't taken it seriously or made a plan. Maybe because there wasn't a single incident I could point to that required recovery, just days piling on days living the aftermath of wildfire and disaster recovery. I'd dabbled in recovery activities but never for the purpose of personal recovery.

I attended another resilience training recently and listened again to the necessity of recovering from trauma. The process was described as moving from a "before" state through an incident, from suffering into coping, then past a turning point into thriving, and eventually growing beyond the original state. I could feel the invitation to recover and paid attention to my reluctance, and to the compounding effects of my years-long experience with daily hardship versus a single traumatic event.

The act of recovery takes trusting in a future that will be different from the past – maybe even better. Recovery is an earnest leaning into the work it takes to move from trauma into behaviors that are additive rather than subtractive. It is taking common reactions to trauma and transforming them into intentional responses like the kinds of physical, spiritual, emotional, and behavioral activities that replace and rebuild what's left after trauma.

My reluctance to recover comes from a lack of trust that my community and my job won't ask of me what they've asked of me before. I struggle to let go of the past that keeps me tethered to readiness when every other billboard in my community says, "Be Ready Butte" with a flame in the corner. To allow myself to recover from the hardship of the fire, the aftermath, and my work in recovery, I must have faith I will not have to take this road again, and I do not have that faith.

Our resilience training addressed the trauma identity and the propensity for humans to hold on to who they become after tragedy. In the absence of their former complex identity which trauma has replaced with a narrowly-focused state of being, there may be nothing challenging their new belief that bad things happen. I don't want to stay in this damaged state of mind, but if I leave it behind and fire draws it back, will I have to climb another mountain as steep as the one I stand on top of now? I'm too weary for that.

And yet, the belief that I can't recover is keeping me from living my best life. My lack of trust in a future rosier than one catastrophic disaster after another eats away at my soul. I find it hard to focus on working toward a vision of blue skies and green mountains when one plume of smoke on a dusty dry ridge sends my nervous system into a frenzy.

Recently, I had the opportunity to visit several rural, remote communities in Butte County where we're updating evacuation maps and assembly points. In communities destroyed by fire, the conversation involves jokes about helicopters landing on homes so people can flee by air rather than worry about roadway clearance. In fire-threatened communities, people talk about the one or two times they've evacuated in the past years and the ways in which they've refined their escape plan. In high-risk communities that do not have recent fire history, folks talk about the trailers they've parked in the valley so they have someplace to go when their home burns. Last night, a woman coming from dance class in her red cowboy boots told us she'd purchased a trailer for her nine ducks in case of fire, though she doubts the ducks will climb in when the time comes.

On Mother's Day this year, we gathered at my parents' house in the canyon and breathed in fresh air and enjoyed the quiet scenery of children climbing trees and hopping over rivulets draining from the cistern. I took in the fact that they're rebuilding their garage after five years, a mini house-like structure on their property with a pitched roof where my mom hopes her granddaughters will play in the rain. The very next day, I attended an evacuation planning meeting for my parents' neighborhood and heard an attendee call the area an "evacuation cul-de-sac." There's only one way out of the canyon on a road that can't be taken in the opposite direction if fire is coming up the exit route. Any obstruction may lock everyone in the canyon with few to no options for escape.

I'm at war with myself and my own recovery, and with the peace I'm trying to make with my parents' decision to stay in the canyon. If I give in to recovery and the worst happens, will I be able to click back into this fragile but hardened state of readiness? If the worst happens and I have not recovered, have I done my best living in the meantime? If I don't recover and the worst never happens, have I squandered my life in this fight or flight mode? The answer to every question is yes and no and, frankly, I'm getting tired of the question.

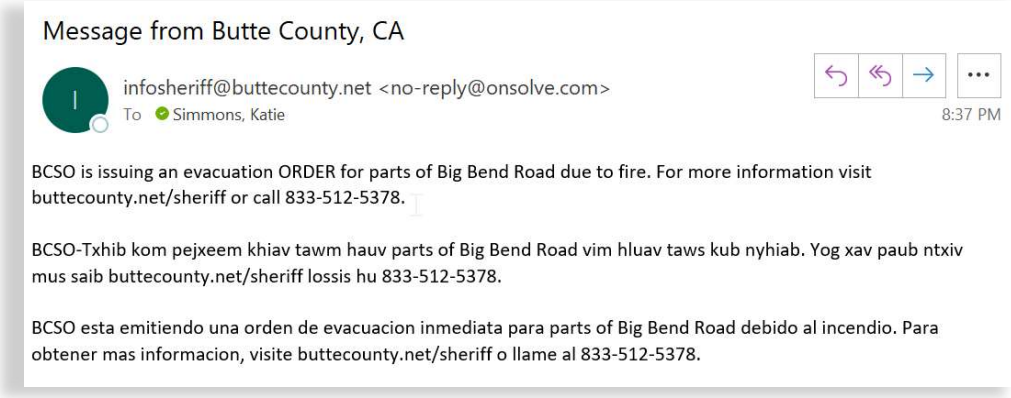
As much as I want to trust that the future does not hold another catastrophe, and as much as I want to trust in the sound construction of my parents' new garage to protect their precious belongings, I feel reluctant to do so. The instructors told us today to challenge our trauma identities with new experiences that lead to new beliefs and eventually the return of our complex selves. They gave us all the tools to track our nervous systems, and to regulate and return them to a pleasant or at least neutral state after being triggered. They explained how the simple act of gesturing with our bodies can change a mood or interaction for the better, a strategy to adjust the inside by changing the outside.

I know these tools and I often practice them. I take breaks during evacuation meetings when the stories get too heartbreaking. In Forbestown, I stepped out into the mountain fresh air and took in the tops of the trees swaying in the spring breeze. I listened to the birds and let my imagination take me back to a time in my life when nature was a magical place. During my regular work day, I try to

take walks during each lunch break to reset my mind and connect to life beyond what's on my desk.

I do all the things I'm told to do, and read about, and listen to, to bring myself greater peace. I know I've come a long way from where I was a few years ago, and I've even built up some resilience. If the rage comes, it doesn't last as long as it used to.

I feel a measurable improvement in my attitude and ability to pause and rest in my skin after strong reactions to negative experiences flush through my nervous system. I know I will survive the ride so I no longer fight it. But I hit a snag when it comes to trusting in a different future, a better future where these beautiful historic communities with swaying trees will never burn. That's where I come up short.



My word for the year is kintsugi. As I understand it, kintsugi is the Japanese art of mending broken pottery with gold which makes it more valuable than when it was intact. The fine art of mending with gold turns a shattered bowl or vase or pitcher into a treasure. I feel I am practicing kintsugi with my mind and my body and my heart. I am holding a bowl of gold and applying it to where I feel broken inside using a patient, firm hand. I know, however, that I won't feel more valuable to myself and to others until I build trust in a future than will keep me from shattering again. On the flip side, I also believe that when I fall and shatter again there'll be more gold to make me whole.

My parents' garage feels like an act of kintsugi, a small bit of gold stitching their property back together. Melissa's new house feels like kintsugi the way she built a home for her future self as much as she did for the woman she is today. For me to heal, to really recover, I will need to shift into a sustained state of seeing the gold and not the cracks it covers. Again, faith and trust in a safe future where Melissa will age in place in her lovely new home, and my mom's grandgirls will play in her garage on rainy winter days in the canyon. Oh, how I want to believe that.

I logged into my email as I wrote this to download a photo of my parents' new garage. At the very top of my email inbox was an evacuation order.

So, while I hear myself wanting a different future, needing a different future, I am constantly reminded of the fragility of our current state and the fact that I'm very much living in it, inescapably, right now.

DOUBLE CONCIOUSNESS

The Ranch Fire on May 15, 2024 caused the first evacuation order of the season but little damage. A series of small fires were put out rapidly by air retardant and ground response, and an individual was apprehended for suspected arson. At our evacuation planning meeting and community outreach events in the following days we discussed the ever presence of these incidents and the need for readiness. A woman looked me right in the eye from the heart of the North Complex burn scar and said if it happened to her again – if she lost another home to fire – she'd leave and never come back.

Glennon Doyle, one of my favorite writers and podcasters, used the phrase "double consciousness" to describe the simultaneous act of living one experience while creating another by posting about it online. Living in the real world and living online can lead to diverging experiences and circumstances, and the need to reconcile the space between.

In our resilience training we talked about trauma identity and the slow and sometimes regressive act of recovering and rebuilding. In the frame of double consciousness, I believe two trauma identities formed for me at nearly the same time, one at work and one online, creating two disparate selves to navigate.

During the pandemic, when I was working on recovery from the Camp Fire, just one month after the North Complex began, I was diagnosed with my genetic neuromuscular disease that I chose to share online a few months later. While I was fresh in the process of learning disaster recovery and experiencing ongoing fire, I was now learning about my disease and the future of my body, and spent a great deal of time processing these heavy topics online.

The Camp Fire created an "after" identify for me, one I would now consider a trauma identity once I embodied the Disaster Recovery Director title. Learning about my CMT also alienated me from myself. I felt betrayed by the body I confidently moved through the world in, that was now starting to fail. Choosing to engage in double consciousness which I didn't have words to describe at the time, had me running two parallel tracks in real life, and two very distinct narratives online. I am wounded; I am a warrior. My body is degenerating; nothing can stop me.

I justified sharing my clinical trial experiences online as helpful to others and clarifying for myself. Posting from the parking lot after each appointment, before I had the benefit of reflecting on the visit during the long drive home, meant I was sharing things I hadn't spent more than a few seconds thinking about. And because I never cried with grief for this disease except for in that hospital parking lot after each appointment, it was at the apex of my sadness and frustration that I gave the world my most hopeful peek. Same with fanning the flames of my fire identity: posting photos from my drives through Paradise in the morning when my morale bottomed out. In real life I was in pain; online I was invincible.

In training, as we worked through the process of shifting our perception of our identities, I realized how many I was juggling at once. There is something very simple and linear about living in the real world without feeling compelled to talk about it online. I am still very much a historian and chronicler of my life, but I no longer choose to grapple with the reactions of others before I grapple with my own.

We're learning that while a trauma identity is running its course, a series of interruptions, or turning points, can open up the door for healing to begin. I told the instructor it's difficult for me to see a trauma identity until it's behind me. For him, moving past being a "cancer survivor" and back into his complex life made up of many roles was possible because of new experiences he chose to engage in to challenge his trauma identity. He fired his cancer doctor who limited him to his cancer identity by discouraging him from participating in a competitive sporting event after surgery. From my outside perspective, he's the one who got himself past the limitations of his trauma identity, and to hear him explain it, he sounds rightfully proud of the process.

For me, as I've described, I am reluctant to let go of my fire identity because I feel like those wheels need to remain greased and ready for the next trek. But for my CMT diagnosis identity, I have certainly moved past the limiting identification of myself as a diseased woman. This was not easy for me, but layer by layer I have peeled away the voices coming from within that say I have to limit myself to the functions of my disease. This doesn't mean I've jumped headlong into running again because the physical limitations are real, but I do not curtail my expectations of myself to the bare minimum.

My online diagnosis identity set people up to ask me about my CMT. Questions like, "How do you feel with your…what is it called?" Now, I breeze right past that and say I feel great, or I head off those topics before we get there. Though I chose to invite people onto that journey of a million miles before I'd taken the first step, trying to manage their experience of my disease as the reality of it was setting in was completely unsustainable. Now, I let people know quickly and kindly that they're off the hook with this topic. It's no longer something we need to discuss

or think about together. It's mine to carry which I'll do deep inside as I continue to adjust to this degenerative disease, which will be a lifelong piece of my identify but not the only one.

There's a picture of me as a baby crawling around in the casts I wore for the first year and a half of my life to straighten my legs. Doctors changed the casts regularly to conform with my developmental stage. I had newborn casts, crawlers, then walking casts with tiny green blocks under my baby toes to create a flat surface for balancing. What strikes me about the photo is how happy I look, how unconcerned I was to be dragging the heavy, restrictive weight of plaster behind me. From my expression, I can see the casts weren't a burden at all, they were just attachments I took with me across grandma's green linoleum floor. This photo reminds me that though the burdens we carry around are very real, they don't have to keep us from moving forward with smiles on our faces. My goal now is to relearn what I knew when I was a baby: the disease is something I am strong enough to carry with me wherever I go.

The collective trauma identity formed in our region through experiencing multiple disasters is likely here to stay for a while. Our evacuation planning consultant asked about the Oroville Spillway Incident recently, wanting to understand why the dam was rebuilt rather than torn down. In conversation like these, I hover above the scene and watch from a distance. I watched my colleague relive the memory of that incident, and the impact of the nation's largest mass evacuation on the community and County staff. As we stood there in the North Complex burn scar working with the community on affirming routes and assembly points, we were transported by the retelling of yet another recent disaster.

The sliding doors between the Spillway Incident, the Camp Fire, and the North Complex Fire, are barely visible except to those who can see the unique experience of each and the collective trauma of it all. It's too fresh and too significant for us to shrug away our consultant's question because of how desperately we wish to be seen and understood here in the rural North State. We pay the emotional price to hand him our valuable insight so that he might come to our defense down the road.

As well-meaning as these questions and concerns are, we address them constantly which keeps them on regular rotation in our minds. And while we handle these interpersonal exchanges on the outside, we battle the need to be ready for evacuation orders to ping our phones at any time while we hope for a restful night's sleep.

The good news is, with training and time, resilient choices feel easier to make. Knowing I can challenge my fire identity by choosing experiences that expand and enhance my outlook puts the wheel back into my hands. I appreciate that I know wildfire and recovery, but I want to know more, I want to experience more, eventually I want to write about much more than this.

UNDER CONSTRUCTION

Our team is administering a multi-family housing program using federal funds allocated for Camp Fire recovery. As the paper, “Renter Experiences after Colorado’s Marshall Fire” explains, renters are often overlooked in recovery programs, lack the resources they need to recover on their own like insurance, and are more likely to support policies that lead to affordable housing. In Butte County, funding for multi-family housing is tied to nearly 3,000 affordable units either under construction or in development seeking gap financing.

This week, HCD explained HUD will not allow funds to be associated with infeasible projects in perpetuity. As our housing representative put it, “HUD will not build half a bridge.” Our commitment to funding projects competing for limited gap funds means housing units sorely needed now may be delayed and perhaps never built.

Years of work and time go into developing projects that never materialize. This is true inside and outside of disaster recovery, and is one of the reasons reporting on recovery progress is so challenging. We could quote the number of units set for construction, while variables outside of our local control can force that number down significantly.

A baffling fact of recovery is there is no correlation between the number of people who need affordable housing and the pace at which those units are built. Aligning supply with the timing of need is simply not a factor when disaster recovery projects meant for replacement housing compete for funds against non-disaster housing in other parts of the state. As administrators of these funds, we sit in the space between local demand and potential supply and do our best to build a whole bridge between the two.

HCD assures us that, counter to our fears about what they’ve written on paper, they do not plan to sweep funds committed to multi-family housing projects in Butte County by the end of this calendar year. The funds conditionally tied to projects expire on paper in December of 2024 and April of 2025. HCD did, however, put the responsibility back on the County to be strategic about the use of those funds which could mean a massive pivot to fewer more feasible projects. In other words, in order to comply with State rules, we might have to settle for less housing by focusing the funds on projects that can score higher more quickly, rather than on projects that geographically house survivors. The choice becomes adding more housing slowly, or building less housing quickly, though I’m not sure anyone would consider housing built more than five years after wildfire to be quick.

In the case of subsidized multi-family housing, recovery tees up on paper long before it happens on the ground. In Chico, where a pipeline of developers lined up for construction pre-fire, disaster recovery funds closed existing funding gaps and those projects are nearly done. In

smaller communities with markets and infrastructure less proven to support multi-family housing, but where demand is growing due to disaster, those projects might sit in suspension for years. This is true for projects proposed in areas that need significant water and wastewater improvements to support multi-family housing density.

Multi-family housing funding allocated as a result of the North Complex Fire is set to open for application this summer. Based upon the pipeline of projects in incorporated jurisdictions and the County's one project in the Camp Fire burn scar still needing funds, it's unlikely any of the North Complex allocation will be used in the North Complex burn scar itself.

Visiting Berry Creek recently, the fire is still evident in every direction with hazardous trees, burned gas pumps, and empty lots brightened by springtime wildflowers – some of them highly flammable. A community volunteer introduced herself to me recently as the person responsible for restoring street signs in Berry Creek following the North Complex Fire. Otherwise, she explained, delivery truck drivers and visitors were failing to find their way around without historic markers, let alone concerns about navigating during an emergency.

In rural fires, as I've explained, reconstruction does not always occur where the disaster took place so it's hard to consider it true recovery. The majority of these multi-family housing projects, once constructed, will create housing opportunities well outside of any fire-impacted communities with the exception of projects in Paradise and above it. People displaced from their communities may be forced to seek housing where the supply grows, or they may continue to live in temporary housing on their lots or on the lots of others.

As of the start of my fellowship research, only 4% of homes destroyed in the North Complex Fire had been rebuilt. Just over six months later, that number is 5%. To address the reconstruction barriers in the burn scar, the County has applied for funds to offset permit and pre-construction costs. While we await that decision, we continue to emphasize the housing

programs available through the State, the loans available through the County, and staff assistance navigating the complex rebuild process. The Board of Supervisors recently approved a $10M wastewater treatment plant upgrade in the intact community of Oroville needing increased sewer capacity for relocating fire survivors. Bit by bit, piece by piece, a version of recovery is moving forward, changing the shape and size of our communities for good.

ANIMAL HEALING

In a department meeting this week, while we talked about how our personal values align with our mission, a co-worker told the story of being one of the first staff members to cross the fire line during the Camp Fire. He was dispatched early to deliver food and supplies and was allowed to cross even before the National Guard arrived. He described seeing large animals as soon as he entered, "newly scarred and still on fire." The fact that he mentioned the animals before he talked about the people who were grateful to see him made me wonder if he has big animal pain, too.

Two years ago, my 11-year-old daughter, Heidi, started begging for a dog. We'd take her to the library to check out dog books to research the many lists she was making at home. As she studied her library books, she wrote down dog breeds in two categories: breeds she wanted and breeds she did not. On the list of dogs she wanted were the largest possible breeds which I nixed.

To play along, I half-heartedly contributed a few ideas to the list but was fully against the idea of getting a dog. We have two cats, numerous fish tanks, house plants, and plenty of other responsibilities. I was not in favor of adding a dog to the mix, especially not a big one. After two years of listening to this, however, my husband and daughter broke me down until I told them the decision was theirs.

A while after the dog lists started our oldest moved out of the house and into the dorms. Heidi was alone except for our cats and we could tell she missed being playful and silly with someone as much as we both tried to entertain her. Something sacred was missing from her life.

We researched volunteering at the local humane society to satiate Heidi's dog obsession, but the shelter requires kids to be a minimum of twelve years old and accompanied by a parent. She'll be twelve this summer but she was eager to visit the shelter and desperate to get a dog so we agreed to give her a look. She was thrilled.

So, a few months ago on a Saturday afternoon, we drove to the shelter to look at the dogs up for adoption. The idea was we'd visit the shelter over the coming months and years to see if she connected with a dog that might be suitable for our lives.

The noise was jarring when we stepped outside to the kennels with dogs barking on both sides. I was ready to leave right away. A staff member helping a couple let us tag along for the tour. We walked through one path with kennels on both sides filled with dogs jumping and barking, some wearing cones. We turned left and viewed another set of kennels before moving to the furthest row on the right. There, in the very last kennel of the very last row was Sadie, tall, white with brown ears, and quiet as a mouse.

While the rest of the dogs jumped wildly in their kennels Sadie came to the fence to greet us, but as we moved closer she turned around and went inside. We noticed how quiet she was and asked a few questions. The staff member told us she was about four years old, a Great Pyrenees mix, very mature for her age, quiet, and loved tummy rubs. We waited for a minute and out Sadie came again, as curious about us as we were about her. Heidi was beside herself. We told the staff member we'd like to meet Sadie.

Since Sadie had just been spayed, we had to wait in a room inside the shelter to meet her rather than out in the yard. We sat and waited until she swished in on her long legs, a huge bundle of curious affection, reaching out with her paws and her nose to touch us. At one point, she easily placed her paws on Rodney's shoulders and looked him right in the eye. Heidi said, "I'm in love," and my husband wasn't far behind.

I wasn't too sure about Sadie but I know when I'm outnumbered so I began to prepare myself for the inevitable. We met one other dog, Penny, who barely noticed us for the distraction of the other dogs outside the pen, and we left the shelter talking about Sadie.

The lobbying started as soon as we got to the car. Heidi and Rodney were really excited and spent the rest of the afternoon pricing out all the things we'd need to buy if we adopted Sadie. With the adoption fee and large dog supplies which are 3x the cost of small dog supplies, the shopping list put us well over budget for the month. But Heidi was in love so we researched Great Pyrenees dogs, filled out the application, and told the shelter we were thinking about adopting Sadie.

The next day, Heidi and Rodney went back to visit Sadie who was still a sweetheart, then called me from the parking lot. Serendipitously, the moment we decided to adopt her the shelter called and said our application had been approved. They picked me up and we went back to the shelter and adopted Sadie. She walked straight out of the door and climbed into our car as if she'd done it a thousand times.

The first few weeks adjusting to a dog weren't easy. Sadie was instantly comfortable in our house but barked occasionally "with authority" as our neighbor noted, and had extremely poor breath and body odor from living in the shelter. We couldn't bathe her due to her recent surgery so we kept our doors and windows open.

It's fair to say Heidi was over the moon from the moment we adopted Sadie while my husband and I were overwhelmed and reluctant. We'd settled into a nice rhythm during the school year and having a dog interrupted that flow. Our first full day with Sadie was Monday and while I went to work and Heidi went to school, Rodney set about trying to figure out a routine for a 75-pound rescue dog who'd just had surgery. She was a little too interested in our cats for comfort so we had to get creative with space for safety. We blocked off our bedroom with a wooden kitchen chair so the cats had their own space, which meant we had bruised knees from running into the chair.

Over the next month, with some dog training for Sadie and for us, she's settled in and we've found a bit of a groove. When we first took her home, we launched into three-mile walks twice a day when, as it turns out, she's much better walking one mile twice a day. We'd leash her up and bring her to community events in a semi-panic not knowing how she'd respond, when now we know to crate her while we go out so she has the downtime she needs and enjoys.

We've learned Sadie likes soft bacon-flavored bones not aggressive chew bones, and she'll do anything for freeze-dried chicken treats. Our cats still aren't totally on board but my husband can't imagine life without her and I'm becoming attuned to the rhythms of having a dog. Sadie is happy as a clam who, yes, wants her belly rubbed constantly.

As we worked through the tensions and challenges of adapting to life with a giant dog, I noticed something changing within me. On my way to work in the morning I was able to drive by the grazing cattle without that familiar tug of pain. In fact, there was an absence of pain and space for something else: peace.

Falling in love with a big dog who looks like a horse-cow, who can stand on her hind legs and reach around my neck to give me a hug, settled something in my soul. A week ago, I told Rodney I believe Sadie is healing my big animal pain. This week, when a cattle truck rolled past me on the highway to move cattle into

the mountains for the summer I wasn't filled with fear and grief. I took the moment to feel peace and hope for safe passage for the cows and an uneventful fire season.

Sadie has gained at least 25 needed pounds since she arrived, and fills the entire kitchen floor when she lays down to rest. She's too big to get around so I have to walk behind her no matter how slowly she goes. I watch the brown spot on her back sway back and forth as she lumbers along and wait patiently for her to get to where she's going so I can get to where I'm going. She's not a high energy dog and does everything on her own sweet time, sometimes collapsing in slow motion from hip to ears to expose her belly for pets. The moment she starts barking I hold up her brush and she's on the ground waiting.

My animal healing comes from the love I'm starting to feel for Sadie and the love I can feel coming so easily from her. She trusted us instantly and hasn't looked back. She lays in her favorite chair every morning when the sun rises, is leash trained, loves duck treats, and plays tag every night in the backyard with Rodney and Heidi, outsmarting them with her galloping pivots and unexpected full-stops. When we're not looking, she digs big holes in the lawn and eats bird food. She's too big and strong for me to hold on a leash but I love to go for walks with her and Rodney and Heidi, our family back to four once again.

I hope the other animals in the shelter find their families, too. I hope the high energy dogs find high energy households with lots of space. The moment I get too sad for the dogs in their kennels I think about the one we were able to bring home and give a peaceful life. The simple act of sharing our lives with one dog who needed a home feels like healing for all of us.

Sadie has taught me that recovering from deep pain is possible, because I sense she's doing it, too. Feeling my big animal pain subside gives me hope that my tree grief will also ebb over time, maybe through another miracle as significant as a rescue dog. With Sadie in our home, I am not who I was before the fire but I've moved several steps closer to my new self. Adapting to her and our new routine is an experience that is challenging my trauma identity. I can tell the more I love Sadie the more space she will free up for peace.

REAL DEAL

It's possible I have arrived at the most painful part of this paper. The part where it seems like there is no place to go but here, because none of the doors I've tried so far have opened. Like Dave Daley's cow story, I haven't found many safe places to share my own pain. And like the CALED exam failure, the embarrassment of believing in something of little value to the mainstream has made me wary. Still, I feel stubbornly, maybe stupidly, compelled to share in case what I have to say helps one person feel less alone in the aftermath of disaster.

At the very end of 2021 I cut my long hair into a short pixie. It was supposed to be an act of liberation as many women find a bold haircut freeing, but it wasn't for me. It was the start of the end of something which was almost too painful to bear. With my short hair, I felt the last of my old self, pre-disaster and pre-diagnosis, disappear and there was no one to catch me on the other side. My social anxiety grew to the point that I fled social gatherings and meetings, texting apologies as I went, unable to describe even to myself what was happening. All I knew was that I wasn't myself, and in fact I felt like no one at all.

With my short hair I went hiking and posted selfies of my adventures, staring into the photos searching for a spark of recognition once they were online. It was a moment when my double consciousness bisected my life completely. Online, I was free, liberated, climbing mountains, overcoming CMT, thriving in spite of it, my face free of make-up, looking directly into the lens. In real life, I held my phone and searched the eyes staring back at me from Facebook for some recognition, reading the comments as evidence I was visible to others. If I could see that everyone else thought I was ok, then maybe I was.

I got a lot of compliments on that haircut when I was brave enough to go out. In some strange burst of false confidence, I'd say it was the style that made me feel closest to myself, and I heard that voice from a million miles away. At night and in the morning, I'd sit in front of my closet and instead of seeing my clothes I'd see Katie's clothes. There was another woman living in the real world who wasn't me either.

I've thought a lot about this disassociation inside of my body, inside of my self-image, and within the person I shared online. Was it a result of the fire, the diagnosis, the pandemic, the family rupture I experienced, the switch from my comfort zone of non-profits into the complicated universe of the public sector, all of the above?

During this time, I was on medication for CMT because I said yes to everything my doctors suggested after my diagnosis. I found myself on the only medicine currently prescribed for chronic nerve pain which I would consider the least of my concerns today. As the divide between my selves grew farther and farther apart, with no longer even a thread connecting the two, I said no to those pills. In fact, I was scrolling through a CMT support group on Facebook late one night when I saw how many people had experienced suicidal ideation while taking the same medication. This was all the validation I needed.

The very next morning I started to taper the dose until I finally stopped taking it all together. It's possible the medication was a big part of the problem because these are known side effects, but because I was halfway through the clinical trial at that point, I'll never know the extent of it. All I know for sure is that ending the medication was not the simple fix I'd hoped for, but it was a start.

I've come to see that time of my life with a little bit of hindsight, and after characteristically drilling into the question of why, the reason doesn't matter as much as what I choose to do with it. The medication taught me that if my mind is sound, it matters less what's happening with my body. That's an invaluable lesson for facing a degenerative disease and will play into my choices from here forward.

Hitting bottom could've been caused by any number of things: the fire, joining the disaster recovery field, the alienation from my body and isolation from my community, the friendships that didn't go the distance. I've spent a lot of time looking for the one thing I could fix to make the hurt go away, but I don't think that's possible anymore. A resilient mindset takes the building blocks and makes something new.

DEFIANT RESILIENCE

I experienced my eating disorder as grieving the fragility of my life while I was still alive. Recovery felt like the waning of this grief until it was gone; recovering from this depression feels similar. Even as my two closest friendships were winding down, I tried to be positive and grateful that I could articulate some of this, but it was soon clear I could not ask anyone to pause their lives so I might catch up.

My clinical trial tested for suicidal ideation and I gave them the answers that felt true to the patient who wanted to succeed as a research subject. I have no shame in that because of how desperately I needed to be part of something meaningful. But my desire to succeed probably kept me from getting the help I needed which is not an uncommon theme for me.

I tried a few times to form new friendships but I had nothing to give, and I'm far too prideful to be a taker so I let those people go, too. At work, I withstood criticism from colleagues who didn't think I was strong enough and smart enough for disaster recovery, and though they might have been right, I was always supported by our leadership to keep going.

Looking back on this all of this now, I see myself on the side of an icy cliff, pick-axing my way up one swing at a time, sometimes missing, slipping, then holding on for dear life before anchoring again. It sounds dramatic but these are the only words I can find to describe the white-knuckle experience of thinking maybe I shouldn't be alive anymore.

I credit my husband for being a solid oasis even though we were rebuilding our marriage. I credit my daughters for being unapologetically themselves and showing me that space and time and resources are meant to be taken because they lead to strength, healing, and growth. During the worst of the disassociation, I'd be surprised when they'd surround me at night telling me about their days, when I couldn't even feel myself in the room. I'd see them seeing

me and use that to be present. Thankfully, my mind is back online and I can stay inside of my body easily enough to hold any conversation again. I'm very much in the room.

When I started this paper, I didn't plan to talk about suicidal thoughts, or my dad's death, or CMT. I planned to talk about fire through the narrow lens of the fellowship on how policy must adapt to the pace and scale of recovery. As it turns out, reckoning with fire is indistinguishable from reckoning with life, because fire touches every part of life, and my life will never be the same.

I am proud I took a moment to research wildfire recovery while still engaged in it professionally. I stared into the barrel of slow recovery and decided to unpack that challenge so others may learn from our losses and our lessons. I hope shining a light on my personal journey with the fire and disaster recovery will help complex people carrying a variety of roles – spouse, parent, friend – feel less alone if wildfire and recovery derails them for a bit. Disaster recovery doesn't happen in air-tight vacuum controlling for all other variables. Life goes on, as messy as it ever was.

I miss the person I was when I didn't worry about my house burning down every day. Just last night I circled our house to see the tree branches hanging over our roof and wondered when the insurance inspector would be by to cancel our policy. I miss the girl who felt safe and free in the trees, who lived with undying faith our forests would always be there, who would visit Lake Pillsbury with no fear of losing it.

I miss loving trees and animals, not grieving them desperately when they are impacted by fire. I miss the professional I was when I flitted bravely in front of people, leading meetings and events with the assuredness of a woman in her prime. I look at her now and wonder where she got that swagger. It doesn't feel authentic anymore and it's a little bit embarrassing, but I hope this is the next strong version of myself emerging.

I closed the divide between my online presence and the real world by deactivating my social media accounts. No more staring at myself trying to get reacquainted, and reading comments to feel alive. Removing myself from the internet was necessary to regain an awareness of my physical presence in the world.

The good news is that though I'm not fully embodied, I don't feel shame about that anymore and rarely judge myself for it. Instead, I try to show up with my real voice and give myself permission to use it for whatever feels important in the moment. This chapter has taught me I can survive not being liked or belonging, so people pleasing is less crucial than it used to be.

The process of writing everything down is also an act of finding my voice again. It is the ultimate interference in the isolation of disaster recovery, maybe even an act of defiant resilience.

Through writing, I can feel myself disconnecting from some of these experiences enough that I never want to describe them again. What a blessing it is to let go of something I no longer care to relive.

CLOSING THE GAP

Over the past two years my hair has grown back. I can now pull it around and tuck it in front of my shoulder like I've done since grade school. Driving down from meetings in the foothills, my hair blows out the window and makes me feel light and free, a little piece of the old me carrying forward.

As I write this, I realize what I've been searching for at work I've also been searching for inside. The definition of recovery is important at work because it gives us bearings in space and time, it is also important to my ability to gauge how I'm really doing. While I've used this research to explore the many definitions, I believe I've found the essence of recovery which brings me back to the obvious.

Recovery isn't static and defined, it is constantly changing and moving and perhaps teasing just out of reach, a reason itself to keep reaching. It is the act of putting effort into something rather than the effort itself. Perhaps the federal government is right when it describes recovery as the capacity to keep going rather than a state of arrival, because it isn't a fixed object we can measure our distance from, so we can calibrate how much further we need to go. It is the messiest, ugliest, exhausting middle you can imagine that never seems to end, the hardest stuff you can dream up. It is the art of repairing what's broken with gold.

Recovery starts with animals on fire, eventually indistinguishable from ash itself, and heartbroken ranchers who start again. It is trees engulfed in flames, cooling gradually from the heat into new shapes and sizes, to stand as burn-scarred sentinels in our black and white communities, crumbling slowly or falling swiftly from a gust of wind or an axe, or allowed to stand with a whisp of canopy into the next season to seed a new generation. It is each one of those animals and each one of those trees, not the sum but the individual parts that add up to the infinite value of being alive.

It is homes bursting with fire then smoldering in wreckage, scraped and sprayed during removal by tank trucks with water hoses, until nothing but a caged pool bottom is left, a place for a family to start over or start anew, or a place for wildflowers and brush to grow while the land turns back into itself.

It is the people shaving in parking lots then being rushed to the hospital, working, panicking, adrenalized beyond recognition, listing their belongings in an offensive act of putting a dollar value on irreplaceability, then pausing for long months or years in the best housing they can

find, starting down one path before reversing into another, bewildered for however long it takes to find home, or left to define it differently for the rest of their lives.

It is the workers with images burned as deeply into their minds as the fire itself, showing intangible things like peace and trust are just as flammable as the objects outside, those workers finding people and places with which to heal, or ducking into a long and tenuous grief that closes off their complex self beyond the one identity that remains, until the sun rises and sets enough that the pain becomes a thing they carry rather than the other way around. So many people lost their lives in the aftermath who never got the chance to heal. If we're keen on what fire takes, we can see it takes much more than it burns.

Still, like the trees standing tall with smoky black trunks, there are giants in our community who bear their scars and lean even further into the hardship because they have small miracles to offer the heartbroken. Maybe those miracles are memories they can share, or ideas for new policies, or the muscle and time to help someone rebuild. There are many people in our communities who are using their bodies and their brains to swing hammers both figuratively and literally at the beast in our neighborhoods showing it they're much stronger and wiser, or at least unafraid. Or they're like me, invited in without much to offer and finding just enough along the way to keep going.

I wish I could put a period on the end of this paper and catastrophic wildfires would never happen again. But as the headlines say this week, there are wildfires burning out of control in Canada and our first responders are gearing up for another fire season no one sees the end to. Soon we'll have an updated set of evacuation routes and assembly points to use in case of an emergency, while in the meantime foothill residents are parking their RVs in the valley as Plan B.

I asked a colleague who worked for our local foundation in the aftermath of the Camp Fire to define recovery for this paper. Having worked with survivors and agencies directly supporting recovery, he wrote:

"I often said that while disasters do not discriminate, the recovery process often does. Recovery, to me, transcends mere physical rebuilding; it's about ensuring an inclusive, equitable process that actively supports the most vulnerable. The goal is not only to repair what was lost but to enhance community resilience and cohesion, ensuring our more vulnerable neighbors are given extra efforts to access resources and opportunities."

Vulnerability can be plainly visible like it is in our recovering communities, or it can be protected from view as it is in many of our survivors who are just getting by even if they look ok from the outside. When we talk about extra efforts in recovery, we're referring to more than securing housing, employment, education, food, services, sustainable financial stability, the bedrock of

meeting basic human needs. We're talking about belonging, acceptance, celebration, joy, pointing our goals toward achieving these so that we may all thrive.

If down payments are made after disaster to test community viability, and we stop there, then we are settling for survival at best. Viability by its very definition is the ability to live, which is important for the deployment of recovery resources from investors like the federal government. But those resources fall short of paying for resilience which requires a different currency altogether: vision.

THE FUTURE

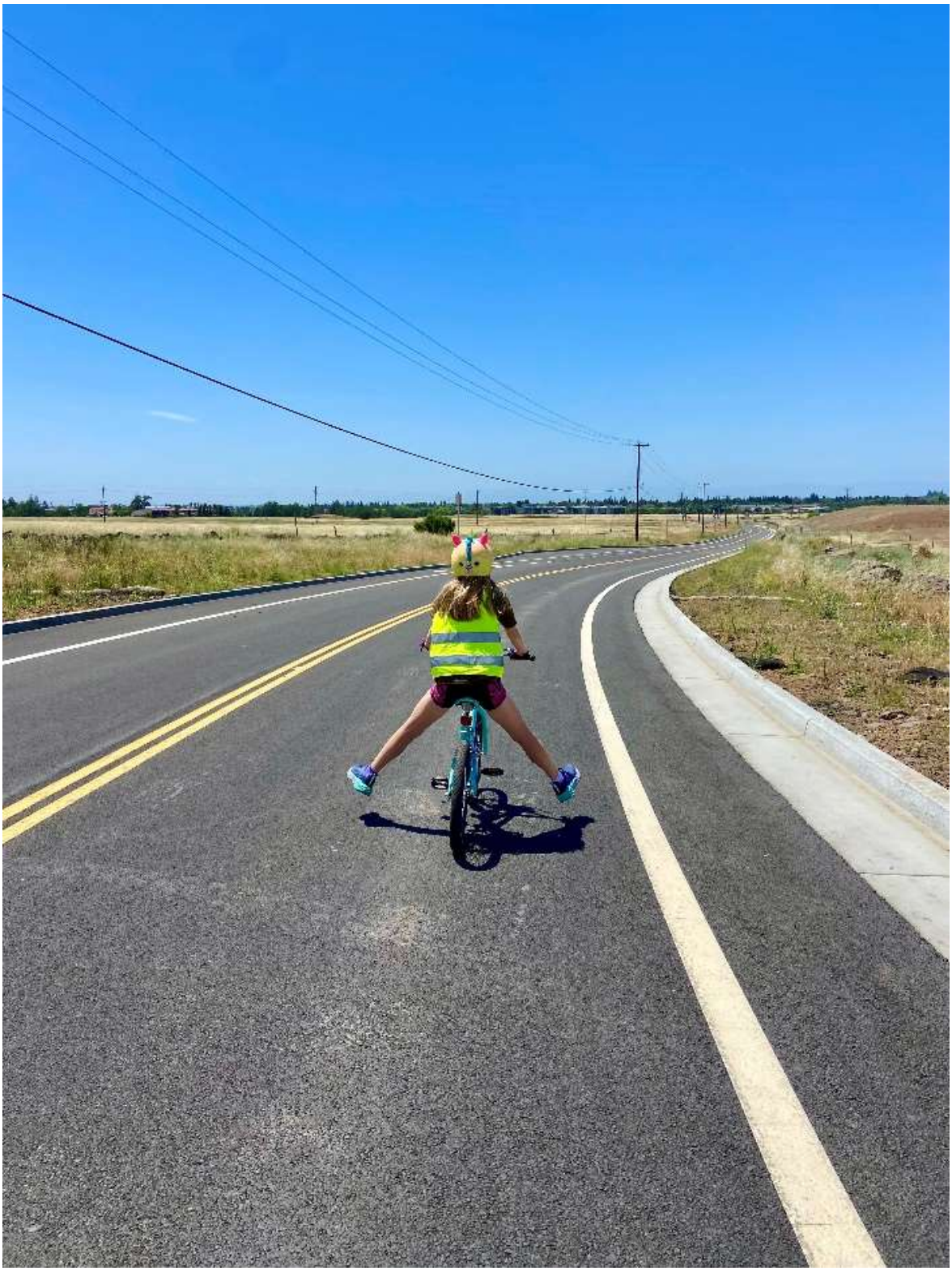
Our resilience instructors explained the difference between solving problems and following a vision. Solving a problem requires focusing on the problem, while following a vision does not. Recovering from disaster is different than envisioning a new community, and healing from trauma is different than living our best lives. On one hand we're restoring what we've lost, on another we're building toward a new future. In a perfect world, we get to do both.

My word for 2024, kintsugi, represents an art that doesn't exist without damage. I am acutely aware that I am trying to solve the problem of the Camp Fire and heal myself from trauma, rather than creating a vision for the future. The art of repairing my wounds with gold by writing about them frees me up to focus on a future without damage. Much as I saw suffering in the eyes on that magazine cover decades ago, I see suffering in my writing. It is outside of me now and I can see it, feel it, and hold it away from myself so the light can soften it.

Suffering is within all of us in this region as we navigate from the worst that could happen into a future that can be reimagined with a bit of fearless vision. Just as Heidi said, I don't need to carry the fire forever, and so with this writing I give it wings.

Heidi and I went on a bike ride up into the foothills above her middle school recently. On a smooth stretch of downhill I told her to watch me as I lifted my feet off the pedals and kicked my legs into the air.

As I did it, I realized pieces of the old me – the little "speed demon" my dad watched flying down grandma's driveway, and the young woman in Paradise finding her freedom on a bicycle – has made its way into the present. I told Heidi to do the same and pretty soon she went flying by me, giggling, kicking up her heels.



Heidi bike riding in Butte County, California

Afterword

Every fire is different. Every recovery is different. My hope is there are a handful of useful observations in here for anyone dealing with fire, aftermath, and recovery personally and/or professionally. The paper is not meant to be instructive, just an offering of experiences and opinions that may dispel some of the complexity and confusion of coping with fire.

Clearly, I am not a recovery expert. I have not been formally educated on response and recovery beyond what I have learned and interpreted on the job through my own lens, and the trainings my employers have generously offered for our professional development. I encourage formal training and reading recovery manuals, and I strongly believe anyone working in and around fire should question and probe at historical practices so the field continues to adapt and improve.

I do not share my story lightly and fully acknowledge that many people in my community and other communities impacted by wildfire have far more harrowing tales. I grieve the lives lost to our wildfires and hope that though I have not honored them personally, I have pushed forward stories of the Camp Fire and North Complex Fire so that others may learn.

As I sit here writing this, my husband called out “Sites Fire at 16,000 acres!” to keep me updated on a wildfire burning near where we will vacation next week, Lake Pillsbury. I spent this past Saturday in the County’s Emergency Operation Center notifying external agencies of our activation in response to two fires, the Junes Fire and the Rocky Fire. Fortunately, both are under control, but we have officially entered the 2024 fire season.

There’s no end to this paper because there is no end to fire. Dave Winnacker, Fire Chief for the Moraga-Orinda Fire District, said on a call this week, “fire is a feature, not a bug.” Fire is on our landscapes and in our lives. It is now a permanent part of who I am. The best we can do is listen, learn, iterate, challenge, and keep trying to stay one step ahead.

Thank you for reading.

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FIVE FIRES

I finished my paper on June 21, 2024 and didn't expect to write any more. But that's fire for you.

Apache Fire, June 24 – 29, 2024

Thompson Fire, July 2 – 8, 2024

Grubbs Fire, July 3 – 4, 2024

Railbridge Fire, July 11 – 13, 2024

Park Fire, July 24, 2024 –

On the day the Park Fire started I was monitoring my phone because that's what we do now. We watch and wait for the tiniest twitch to tell us it's time to report to the Emergency Operations Center. I saw little more than where the fire started and how fast it was moving before texting my husband to pick up our 11-year-old camper from the park. It's hard to say if it was mother's instinct or a readiness I can only describe as "the world is about to burn down."

He did pick her up and, as it turns out, that was her last day of summer camp in 2024 and the first day of the 4th largest fire in California history.

It's late August which feels important to mark because fire timestamps life; it also erases time. Fire locks communities in a state of suspense while doing its thing – for days, weeks, months – then hands everything back and shrugs like it was never there. And except for the destruction it has wrought and the landscape it has altered, the sky turns blue again and life goes on. For the people working through it, or living through it, they've been catapulted into the future through the sliding door of fire.

After fire, life devolves into the clunky mechanics of every burden imaginable for survivors. The smoothness of a life undisturbed by fire is something we take for granted until it is gone. As friendly as the staff are, the last thing anyone wants to do is push their walker through a Local Assistance Center gathering fliers for social services after losing everything they own.

Last week I heard a consumer advocate express relief that the Park Fire hasn't been as destructive as the Camp Fire. I emailed her that the fire that destroys a home is the worst fire that homeowner has ever experienced. There may be inequity in the scale of fire, but there is equity in destruction for the people impacted. The following day, in our evacuation planning meeting, a public safety official commented that by day two, the Park Fire exceeded the total acreage of the Camp Fire which burned for several weeks. If we're measuring destruction of

habitat loss by volume, the Park Fire exceeded the Camp Fire by a factor of three. The Camp Fire, however, took far more lives and structures.

So, let's not compare fires. They all hurt in different ways and in different places. They hurt our homes and our brains, scarring our memories. We lose places and, tragically, people we will never get back from death or from the walking death of recovery.

The Thompson Fire started on July 2nd right outside our office building. As it picked up steam, billowing and blowing wildly, we were called into the Emergency Operations Center. I carpooled with a co-worker, steeling myself for the fear ahead, and the responsibility of reporting to work for an indeterminate shift on fire.

On our way to the EOC we passed kids on the street looking up at the smoke curving easily over their heads from the hillside, swallowing their summer sunshine and shading mid-afternoon. Fire is terrifying in the distance and incomprehensible up close. As we drove closer to the flames, I prayed those kids had an adult nearby to whisk them to safety. As I did that, I knew fire was imprinting itself on their memories as something they'd never unsee.

From the EOC, we watched the fire wind whip the trees and the smoke layer and color itself in light and dark. I took a video for my family so they could see from their relative safety the utter chaos we were experiencing. Within hours we relocated the EOC from Oroville to Chico, where we, too, could be safe from this one.

The 4th of July came and went during the Thompson Fire, one day, the next day, no days the same but not unique enough to remember, because time has a way of stitching days together during fire.

At its peak, the Thompson Fire displaced well over 10,000 people temporarily, ultimately destroying 26 residences and structures, and damaging another 8.

Today, the view of the Oroville hillside from my office is ringed with black char. The big white "O" for Oroville pops out of the blackened cliff like a stunned eye. Driving into work after the Thompson Fire the air was resonant with smoke and ash – not the dank distant smell of fire but the close, sharp presence of 3,789 acres of ash and soot. We blasted our air purifiers until our noses blinded themselves to the smell.

The Thompson Fire was pockmarked by other fire starts, four in one day. The noise of the EOC hummed along unbroken as our phones beeped and buzzed with news of other fires. We added new evacuation zones to the whiteboard, opened a new tab in our minds for a second set of fire stats, and moved on to the next task. The Grubbs Fire came and went, taking 10 acres and at least 1 residence. We held our breaths the night of the 4th, hoping errant fireworks wouldn't rain on this terrible parade.

CalFire Incident Management Team 6 fired up the Fairgrounds in Chico for the summer, moving in their trailers, tents, and trucks for the Thompson Fire. While personnel were out on the line, we took a quiet afternoon to tour the Incident Command Post as a training opportunity for Butte County staff new to emergency response. The trailers were air conditioned because temperatures skyrocketed well past 110, bearing down from the sun and radiating back up from the asphalt in boiling waves, cooking the smoky air. I was standing in the 0700 briefing one morning when the operations chief warned of temperatures reaching 118 and I excused myself to sit down, wobbly at the thought of everyone around me surviving the heat and flames. "This is stupid," I said to myself over and over, disbelieving their circumstances.

ANOTHER BIG ONE

A few weeks after the Thompson Fire tapered, we got news of a fire start in Upper Park in Chico. I took one look at the dirty brown column and texted my husband. I worried I might be overreacting but then he and the rest of the community watched as the Park Fire exploded in the foothills, hell bent on becoming another record breaker. The Incident Commander clocked the fire at 5,000 acres per hour without wind during those first several days.

We reported to the EOC in Oroville just after our workday ended on July 24th and began a shift that lasts to this day. It's one month from the start of the Park Fire and it still burns in Tehama at 71% containment, the 2nd largest single-ignition fire in state history until another fire brazenly stakes this claim to fame. The two largest single-ignition fires in California started in Butte: the Dixie at nearly a million acres and the Park Fire.

Incident Management Team (IMT) 3 was assigned to the Park Fire initially, then refocused on the Butte Zone as the Tehama Zone stood up and IMT 4 arrived. Our IMT Liaison joking referred to the unified command with the US Forest Service as "Team 7." 400,000+ acres is a big fire requiring two Incident Command Posts: the Fairgrounds in Chico and the Fairgrounds in Red

Bluff 40 miles away. Chico remained headquarters until the fire took itself to Tehama and made itself comfortable.

The Park Fire is plume-driven, meaning big enough to create its own weather system which ultimately self-implodes. Above the smoke cloud, pure white cumulous clouds form – ice caps, they're called – indicating fire weather. The Incident Commander explained, "Think of a plume like a watermelon falling from the sky, fire splats all over when it collapses." Plumes are what fire looks like when it takes a big deep gulp of the sky, gathering energy and steam.

The sight of fire holds whole counties hostage with its otherworldly power, showing people there are things far stronger than their bodies, equipment, aircraft, and incident management systems. When fire is out of control it flagrantly brandishes all of its cards, hiding nothing as it wreaks its crazy havoc.

On the night I took this plume photo I had a conversation with the Park Fire. I could see how upset she was, how vengeful. In my small body with my small brain I told her we could see her, feel her, acknowledge her anger. She was too busy to speak back to me so she carried on, leveling her plume before nightfall and glowing red from the ground. I attribute my talks and assignment of gender to the Park Fire to the zombie-like sleeplessness of response, but I also believe communities go to a place far beyond reality to comprehend fire. We barter, we beg, we try to reason with the beast. As powerless as we are, survival instinct has us whipping every tool out of the toolbox. I sense this same determination at the Incident Command Post day in and day out: steady, informed, reasonable, repetitive, nimble, aware, constant.

The Park Fire nearly brought me to my knees one night as I sat behind my desk at the EOC. Evacuation warnings were called in Magalia and Paradise, communities still recovering from the Camp Fire. The thought of the Park Fire doubling back to take communities already taken by fire seemed wildly inconceivable. As we coordinated our County response to this threat, I felt

my own body threaten defeat. I heard my voice strong and mechanical, while I knew that if this fire burned Magalia and Paradise, I would need a long, hard rest on the floor. For three months. That night as I drove home to stay alert to my phone in the half-sleep of response, I saw the Park plume glowing pink and red like the open mouth of a volcano. It sat unmoving above my town, above our foothills as empty of people as they could be, as full of wild animals as they'd ever been, and I said, "enough, fire." You. Have. Taken. Enough.

The Park Fire decided not to double back, but it didn't stop doubling down. It found the Mill Creek Drainage which IMT 3 calls, "legendary in the firefighting world." The drainage isn't a small, dry creek bed as its name would suggest, it is several miles wide, the perfect funnel for fire to move unimpeded, unreachable, unseen when its plumes ground aircraft. By the time the Park Fire established in the drainage it had left its mark in Butte County, destroying 408 structures in Cohasset, 62 in Forest Ranch, and 5 in Richardson Springs. The familiar tide of slowly learning friends' losses ebbed and flowed. I surprised myself by bursting into tears at the sight of a friend who lost her beautiful home in Forest Ranch. Weeks of exhaustion and grief poured out in that single hug.

Our Emergency Operations Center began deactivating as we activated the Disaster Recovery Operations Center (DROC) which is the structure that stands up early recovery processes like debris and tree removal. For a while both the EOC and DROC were operating concurrently, on top of regular life and work, which is the co-occurring nature of response and recovery. I tried to keep pulse by letting cooperators know we were focusing on response, repopulation, and recovery to demonstrate the layered work county government does when fire moves through.

Last week, I was ready to tour the Park Fire damage for the first time, driven by our Fire Chief who narrated the scene. Ahead of us in another truck were two other colleagues and the Battalion Chief who briefed the EOC daily on both the Thompson and Park Fires. We stopped in various places to see what survived and what didn't. At one point, staring out into the black, white, and gray world, I asked if fire blindness is a thing.

Above an old antique lot where hundreds of classic car hulls sat rusted and ashy, the trees stood frozen in fire wind, their pine needles still faintly green but crisped and pointing away from the canyon where the fire bore down. Before they fall or are removed, trees are the weather vanes of fire.

My eyes are accustomed to spotting these details in a burn scar now, trained to know the direction and heat of a fire from what's left behind. We got out of the truck at the canyon edge where nothing but white ash piles and black tree stalks stood for several thousand acres. A peep peeping turned our heads to a gaggle of quail hopping quickly away. Life!

The roofs of the standing homes were painted pink with retardant, green shrubs and bushes still growing under the windows, contrasting piles of metal, a standing chimney, and wire whisk trees next door. Fire shrinks homes to nearly nothing, making it impossible to know the scale and size from the ash left behind.

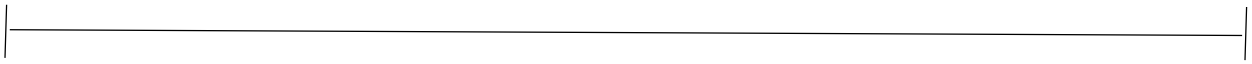
The Chief pointed out green shoots pushing up from the black claws of charred manzanita and oak brush. Oak trees are hardy in fire he explained, as we've learned, and will surprise us by coming back to life after a year or two. But that won't be true for the pine forests where animal carcasses were cleared before we arrived, where soot will turn to sludge in the first rain and sheet down the canyon walls to clog the waterways.

PREDICTIVE QUESTIONS

As we build our data to support Park Fire recovery a few key questions stand out. These questions are in the Triage Tree and I believe are some of the most critical to understanding the complexity and length of recovery. Complexity draws out recovery which prolongs suffering. To me, recovery isn't best approached by answers – because trusting the source can be dubious – but by knowing what questions to ask:

Length of recovery:

Short *Long*



How many fire survivors were renters?

None	Some	Half	Most	All

How many fire survivors were on fixed incomes?

None	Some	Half	Most	All	

How many fire survivors had inadequate insurance?

None	Some	Half	Most	All

How many fire survivors lack access to municipal water and wastewater?

None	Some	Half	Most	All

What is the general housing availability for fire survivors in the region?

High	Moderately High	Moderate	Moderately Low	Low

Is homeowner's insurance available and affordable for reconstruction?

Yes	Likely	Moderately	Unlikely	Not at all

Questions will vary by disaster and by jurisdiction but developing processes, like intake surveys to gather survivor information at Local Assistance Centers, and tracking key indicators can generate critical information early in recovery. Understanding the length of recovery will help government staff and elected officials estimate end dates on key policies that govern recovery activities like urgency ordinances, and calculate the resources needed to fill any gaps.

IMPOSSIBLE LOVE

I had the opportunity with this research to develop a predictive model of recovery – an algorithm that could determine whether or not a community might achieve viability after wildfire. I got pretty close to making this my sole focus, convincing myself that viability is the goal because that's what the scholars say. I told myself to look from the outside in, focus on what (or who) is most likely to recover, then calculate if that's enough for the majority of the community to tip from destruction into economic and social viability. Viability means the likelihood of survival, and isn't survival what we're after?

I hit a hard wall with this analysis culminating in my most embarrassing moment during the fellowship: crying uncontrollably on a coaching call. It was hard to articulate then what I fully understand now – that hope, perseverance, human spirit, the odds, and a deep protection toward survivors of wildfire are barriers to turning this into an academic exercise. I cannot be compelled by any amount of research to say that our most vulnerable communities, hit by tragedy, will not survive because that's what the numbers say. Almost as heartbreaking as fire, is considering that some of the communities that burn are gone for good. Nothing saps my lifeblood faster than giving up on the human spirit.

I have to believe these communities will come back. That Paradise will come back – different, but still Paradise. That Cohasset will come back, Magalia will come back, Berry Creek will come back. They may never recover to exactly what they were before – perhaps not to the conventional definition of viable - but the love of the people who need these communities to exist will bring them back.

While touring the North Complex scar a few months ago, I stood behind a woman staring down into a ravine at the property she inherited from her grandmother. The land was charred as far as the eye could see, 100% tree mortality as the experts beside me said. She turned back to us and implored the group for help. The trees had already started halving themselves, breaking in the middle and casting off their tops. Trees fell into trees which fell into trees which fell into trees which slid down the steep slope in messy piles. At the bottom of the ravine stood her home.

One by one the experts stepped up to talk about which trees to let fall, which to clear, and what to do with the dead wood. They talked about soil restoration, slope stabilization, and erosion control. They did not talk in months or even years, they talked in decades, in lifetimes. As it became clear that developing a restoration plan for her land would take far longer than a quick visit, she exchanged contact information and we left somberly in our caravan.

I can see why people who live far away shrug away the idea of recovery. Why restore the dam when it breaks? Why rebuild after wildfire? The near impossibility of bringing land back to life is fair reason for doubt. There could be only one reason the North Complex survivor stood there with us staring out at her land, feeling the one thing that makes the impossible possible: love. She loves the land that attaches her to her grandma, to her heritage, to her future. It's the same reason Melissa and her husband knew the remnants of their property were enough.

As much as I know money and time drive recovery, so does the unquantifiable, unbreakable, undeniable presence of love. It's why my parents won't leave the canyon. It's why I keep going back to Lake Pillsbury. I'm as certain of its power as I am of an adequate insurance pay-out's ability to fund reconstruction. And why focus on one and not the other?

Love didn't come up in my interviews because it doesn't constitute a down payment, it can't master plan a development, it can't build a house on its own, but it might just be the most compelling variable in the mix when recovery involves choice. It might explain why my friend who has moved three times since the Camp Fire recently told me she's rebuilding in Paradise. After years of suffering without the love and peace of place, she and her husband are moving home.

SOFT SPOTS

Many points I make in this paper are observations of good work done around me during response and recovery. I am a student of recovery with each fire that impacts Butte County, learning from my wildfire elders and new staff who ask great questions of their own. Hearing colleagues share personal and professional stories of response and recovery normalizes my own experience. In this way, counterintuitively, the EOC is a soothing place of shared history and empathy.

Learning more about what breaks my heart with each successive fire helps me understand what kind of sadness I need to heal. Leaving behind shame for what I do and don't know, for what I can and can't do, makes room for sadness to move through and out.

As early recovery for the Park Fire challenges us with new questions, and delivers bright spots of help – and the sweet smell of donuts in yesterday's DROC meeting – I am infinitely grateful for the fact that I'm plugging into a wide network of knowledge and experience. Fire recovery is like putting together a delicate puzzle wearing a blindfold and heavy gloves. Thankfully, no one person is responsible for figuring it all out alone. That said, on a multi-agency recovery team there is tension and frustration, a little bit of fury, a fire lit inside of people who have to do it again. And again. At work. And, for the least fortunate in our community, at home.

I had hoped to wrap up this paper in a neat bow. Alas, the communities I wrote about just a few pages ago, untouched by fire for decades, have now burned. I wrote about steeling myself for this happening again, and it did. I wondered if I have the courage to respond, and I do.

A Fire Captain recently explained that fire season used to line up with football season, fueled by Fall winds when tree leaves and grasses are dry. But that's not our experience in Butte County where conditions are ripe for wildfires to strike in early July. As we wait impatiently to learn if the State will grant funds for recovery for the five fires we've bundled under one local emergency proclamation to attempt parity for survivors, I wonder if this afternoon, or tomorrow, or next Tuesday we'll start all over again. In reality, we might.

So how do we keep going?

To help myself through the emotional strain of fire, I now acknowledge my soft spots: the animals and the trees. I wear grief on my sleeve for everyone to see. Burying it in my heart

allows it to sour and spoil, and grief that rots is toxic and immovable. My co-worker verbalized my particular pain on our Park Fire tour, and I allowed myself to double over in front of our Chief as if I'd been punched by fire. We have been punched, and this is where it hurts for me.

I don't know what adding this new layer of wildfire means for me and my friendships, the wispy alliances that look more like smoke than string. We will see if I can rebuild those or if I should build new connections with people who are also steeped in fire and recovery. I'm surprisingly ok with the latter; the grief of my old life feels softer now that I've sifted through my own ashes in this paper and found the remains that matter most to me.

I have no shame about my sadness, or the fact that when I respond to work to help with these fires, they transform who I am. Trying to push my way to the front of this orchestra to wrest away the conductor's wand feels like missing the point. The point is not to control this because that would be futile and maddening. The hard, gratifying work is accepting I have no control over these fires, and finding strength in my ability to show up for my community when called.

STORYTELLING

When we stood up the DROC for the Park Fire, I found myself driving to Paradise to deliver health and safety packets to a non-profit who would distribute them to survivors in Cohasset and Forest Ranch. I had the distinct feeling that Paradise is now the big sister to our newly recovering communities. I also felt disoriented that the County is once again walking survivors through the early steps of wildfire recovery.

A co-worker once worried aloud that we're like frogs in a pot of water slowly heating to a boil. What if we can't recognize the point at which we're suffering too much, and we never jump out? And does it matter if life and work carry on regardless, and we're compelled to help our communities through anything?

As I crested into Paradise on Skyway and looked at the Town rebuilding, I felt my mind and heart expanding to take on these new fires and our new reality. As insecure as I feel at work sometimes for how much I don't know, I also recognize in moments that I know more than most people outside of Butte County about wildfire and recovery through lived experience. Maybe that's enough.

In the coming months and years my goal is to find and strengthen connections with new friends who exist in this space of expansion and duty with me. People who, by now, know what breaks their hearts during disaster and know what breaks mine. I need deep rest when I can get it and permission to write, write, write. Permission to process the pain by putting words to it, so it might ease the wildfire tumult in someone else's life.

My passion is turning storytelling into advocacy; helping draft letters the County sends to State and federal lobbyists and elected officials, and adding metrics to the letters our NGOs write. The impact of wildfire on Butte County can be quantified, qualified, and should make a difference in the field of recovery as policies and procedures are set, tested, and adapted. More than anything, it should be *felt* so it can be understood.

My fellowship mentor checked in with me during the Park Fire and I responded that my soul could sleep for weeks. While that was true as the fire raged out of control, I have limitless energy for digging in and articulating what does and does not work in disaster recovery. If there's a pathway for sharing, I believe I can keep showing up and doing the work.

Storytelling is the release valve for alienation, isolation, disorientation, rage, all the things we feel when fire arrives. Accepting this feels like my first act of personal resilience. This fellowship has been the doorway from personal suffering into healing, producing evidence of what can be felt but not seen in any of the research, revealing the one thread that ties together the incomprehensibility and impossibility of coming back after fire.

My definition of recovery is love.