

PARTNERSHIPS

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PHOTOS BY EDWARD CLYNES





A TIME AND PLACE FOR RESILIENCE

Pat McElroy had been fighting fires for the City of Santa Barbara for 37 years, serving as fire chief for the last five, and was poised to retire. Yes, Santa Barbara is a great place to live, and firefighters consider the city one of the most desirable work details in the nation. But wildfires are becoming larger and occurring with greater frequency, and McElroy had tackled his fair share. He was, as he put it, “More than ready to begin a new chapter.” At noon on December 4, 2017, the City of Santa Barbara sent out a press release announcing McElroy’s intention to step down in 100 days.

Just six hours later, the Thomas Fire sparked north of Santa Paula. As the blaze quickly metastasized, scorching more than 500 homes in Ventura alone, what McElroy had hoped would be a countdown of reflective days turned into the toughest of his 37 years, both personally and professionally.

As destructive as the Thomas Fire had been, few could have imagined the calamity to follow. At 3:54 in the morning on January 9, 2018, an intense burst of rain produced a dense soup of mud and loosened boulders. As the debris rumbled swiftly downhill, sweeping up trees and brush in its path, it ruptured a pair of Southern California Gas Company lines. The explosion illuminated the sky as brightly as the midday sun. Gathering force, the debris poured into neighborhoods, exacting a grim toll including the loss of nearly two dozen lives.

In those pre-dawn hours, McElroy joined hundreds

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– soon to be thousands – of first responders attempting to reach trapped survivors. They would continue their search for weeks.

Like others in the community, Les Firestein was deeply shaken by the experience. Firestein had never met Chief McElroy. But soon he and others would coalesce around “Pat Mac,” each with a desire to step from the shadows and help in any way they could. McElroy became a central figure in this new group, which has since organized itself as the Partnership For Resilient Communities.

AN EXPERIENCED TEAM

The group had at its center Brett Matthews, whose work in the equity field included expertise in risk management and public-private partnerships. Matthews recognized that this daunting challenge required a collective solution. He reached out to friends including McElroy, Firestein, Joe Cole, Gwyn Lurie, and Mary Rose. “Montecito and Santa Barbara have a half-degree of separation,” says Cole, a real estate and corporate attorney and founding member of the Partnership. “Many in our core group had already worked together often on community projects. Brett and Mary had worked together for many years on private funding of enhanced County and City firefighting capabilities, and on a variety of city and Montecito elections. Brett had worked with Gwyn on the school board. Pat and I were involved with our kids’ high school and inter-collegiate sports, and in city elections supporting increased first-responder pay, improved equipment, and live fire facilities.”

A 40-year resident of Montecito, Cole chairs the Montecito Planning Commission. Four of his friends perished in the debris flow, and others had been admitted to Cottage Hospital. In the days after the event, Cole spent so much time at Cottage that he set up shop in the cafeteria.

It was from the hospital cafeteria that the nucleus of the Partnership For Resilient Communities came into sharper focus. The group expanded to include Alixe Mattingly, Craig McCaw, and Ron Pulice. All were



Brett Matthews:
Public Private Partnership Entrepreneur and Investor

grappling with the same question: how can we help... *now?*

Over the past nine months, the Partnership has evolved as a non-profit public-private organization committed to researching then actually implementing debris flow technologies from around the globe. It has raised robust funds – already well into the seven figures – to support these technologies and protect Montecito from future carnage. Its members hope the information they gather and lessons they learn will be useful to other communities facing similar challenges in California and beyond.

PRE-DAWN RESEARCH

Each member of the group has a different skill set. Cole has in-depth knowledge of the County government. Mary Rose, a 30-year veteran of environmental and education issues, managed both Lurie’s and Matthews’s successful campaigns for Montecito Union

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School Board. As for Gwyn's husband, Firestein, says Matthews: "He's not afraid to cold-call anyone. We knew that other parts of the world face debris flows on a continual basis, so Les made it his business to contact world-renowned experts in the field."

And so it was that Firestein, a self-confessed "absurdly early riser" and "aggressive researcher," would communicate with debris flow gurus all around the world in the wee hours. Afterward, he would brief Matthews, his around-the-corner neighbor, about his findings – typically at 5 am. "We all still had to do our day jobs," says Firestein.

A nagging piece of local history haunted their conversations. Ten miles down the road, the tiny community of La Conchita had suffered two landslides in the space of 10 years. It was the second slide, in January 2005, that caused the most damage, with 10 lives lost.



Les Firestein:
Builder and Innovator

PUBLIC-PRIVATE COLLABORATION

The group quickly realized that county officials, however well-meaning, would not be in a position to address the immediate risk of future slides. The mountains had been largely stripped of stabilizing vegetation, and there was not enough time for the County alone to arrange for traditional protective infrastructure, such as the permitting and creation of debris basins of adequate capacity.

"Right after the debris flow, the County was focused on recovery, as they had to be," Matthews points out. "They were still searching for missing people, rescuing survivors, providing them with shelter, food, and clothing." To make matters even more complicated, the County was also developing and implementing a plan to dispose of approximately 2 million cubic meters of debris, even as they sought to repair critical infrastructure. To be sure, they were cleaning out the creeks and debris basins. But it wasn't enough.

"I can't overstate the band-width issue," says McElroy. "The entire County is in draw-down. It's not stopping. We're seeing fires like we've never seen before." And, he adds, "County flood control has a *really* full plate. If this was done the typical way, they'd have to go through budget requirements, agenda requirements, meetings, vendors, et cetera. And you're dealing with federal land, state land, county land, and private land, and there are different processes and regulations for each. The unprecedented nature of this incident called for fresh thinking."

Like everyone else in the community, the Partnership was already thinking about what *next* winter might bring. "We knew that if the County had to go it alone, it might take three or four years to put solutions in place, simply because of the time it takes to go through the regulatory process and implement major civil engineering projects," Rose says. "So we said, 'Let's problem-solve.' It's the art of the possible. This event forced everyone to think



Gwyn Lurie:
Board President, Montecito Union School District

outside the box.”

Already, community groups such as the Bucket Brigade and the County’s Montecito Recovery Center were tackling other important aspects of recovery, including clean-up and survivor support. “So, we focused on our ‘true north,’” McElroy says, “which is: what are the tech solutions? What’s the science behind the debris flow? What can we do about it? What is going on in the drainages? Can we stop a debris flow? Steer it? Shape it? Make it less terrible?”

The Partnership made a decision to initiate collaboration with government agencies, nonprofit groups, environmental groups, and the private sector. “What the private sector can do is access capital quicker and access expertise quicker,” says Matthews. McElroy echoes this key point. “A public-private partnership allows a nimbleness that government processes just don’t have... and *can’t* have by their very nature,” he says. “The firefighters and other first responders in the Santa Barbara area remain among the best in the world, and they

will always be here for the people of this community. What appealed to me about working with the Partnership was their desire to be supportive rather than directive.”

ENTHUSIASTIC RESPONSE

First, the group organized a meeting downtown with four fire chiefs. All expressed their vigorous approval. Then, the Partnership reached out to local politicians, including Congressman Salud Carbajal, who represents California’s 24th Congressional District.

“To our relief, Carbajal was very enthusiastic,” says Lurie, recalling a meeting over late-night pancakes at the IHOP on Upper State Street. “Salud started naming names of people in the county and state who could be helpful.” After that, the Partnership met with State Senator Hannah-Beth Jackson, who chairs the Joint Legislative committee on Emergency Management. Subsequent meetings with First District supervisor Das Williams, County CEO Mona Miyasato, County Recovery czar Matt Pontes, and, later, County Public Works officials yielded critical support.

Next, they began consulting with environmental experts. At McElroy’s suggestion, they reached out to James Lee Witt, head of FEMA under former president Bill Clinton. “He was here to meet with us in a matter of days,” McElroy says. They also consulted with admiral Thad Allen, co-chair of the National Science Foundation, who had served as incident commander for Hurricane Katrina and the Gulf oil spill. And they enlisted other experts such as Tom Dunne, professor of geology and hydrology at The Bren School, and professor Max Moritz, who specializes in drought and wildfires at the University of California Berkeley.

About this time, Firestein’s ransacking of worldwide debris flow experts was starting to yield some interesting leads.



(photo by Jim Fabio)

ENVIRONMENTALLY SOUND SOLUTIONS

In the Swiss Alps, as in the foothills of Japan, debris flows are a fact of life. Mitigating the damage is on its way to becoming a hard science. In consultation with the experts, Firestein reached out to Swiss and Japanese companies working with innovative materials that take the idea of community protection to a new level.

“Les would be sending us videos at 3 am of debris flow mitigations in Japan or Switzerland or the Pacific Northwest,” says Cole, “and by 9 am the next morning, he’d have samples being flown in from Switzerland.”

“Experimenting with ideas was always a part of our thinking,” says Firestein. “But we never considered any solution unless it fit with our community – which means solutions that are environmentally sound or what I like to call ‘environmentally porous.’ The last thing we wanted to do was turn Montecito into a foliated fortress by erecting massive, monolithic, man-made infrastructures that would detract from Montecito’s natural beauty. It has been critical to us to keep Montecito’s unique nature intact.”

Not all of Firestein’s research took him far afield. It turns out, some essential tools were available literally next door. Ventura County’s Office of Emergency Management has a stellar record and reputation, so Firestein paid them a visit.

“I asked officials in Ventura why they were so successful,” Firestein says. “One of the first things they told me is they hired a ‘private’ weather service... to give them more information coming from further offshore with more precision and greater frequency. The farther out you can read accurate weather formations translates to greater advanced warning for first responders.”

Since weather gets “passed” from county-to-county like a baton, in short order the Partnership hired the same private weather service Ventura uses, and then “donated” it to Montecito Fire. Around the same time, Professor Dunne put Firestein in touch with local internet entrepreneur Paul Gauthier, who as a hobby developed a real-time debris flow prediction model, working in concert with NOAA and the U.S. Geological Survey. With community safety in mind, Gauthier allowed the Partnership the use of his technology at no cost.

MANAGING DEBRIS FLOW

By now, the Partnership was well on its way to developing a pilot program for implementing high-tensile, debris-catching ring nets, manufactured by the Swiss company Geobruigg. Cole, Rose, and local land use planner Suzanne Elledge negotiated with pertinent landowners, regulators, and agencies to obtain the necessary permissions and permits.

Managing debris flow long-term, they found, is much like avalanche control. Rather than focusing on the eradication of debris and its sources, the most effective strategies focus on reducing risk and relieving downward force.

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Pat McElroy:
Former Santa Barbara City Fire Chief

“The debris nets, of course, don’t solve the problem of debris,” says Firestein. “What they do is double the holding capacity of Montecito’s existing debris basin network and give at least some coverage to some of our drainages which, at present, have no debris basin whatsoever.” Firestein adds, “We’re trying to bridge the gap between the time it will take for our mountains to revegetate and the time it will take for Public Works to truly upgrade our drainage infrastructure.”

“But we’re not just about the nets,” adds Lurie. “Going forward, we are committed to something I like to call ‘organic resilience’ – working with nature, as well as honoring the aesthetics of our natural habitat.” Firestein adds, “By taking an organic, holistic approach to the enhancement of our environment, we are hopefully more prepared and calibrated to deal with climate challenges for the long term.”

In its initial phase, the Partnership’s pilot program aims to deploy 18 nets. Geobrugg nets, considered the gold standard within the industry, are already in widespread use in Switzerland and the Philippines, as well as Camarillo, Big Sur, and throughout the Pacific Northwest. The Partnership aims to raise more than \$5 million in the initial phase.

Already, they have raised more than \$1.5 million from private donors; others have pledged an equivalent amount.

The Partnership’s efforts have also earned them the respect and admiration of government officials including Dave Fukutomi, former deputy director of California’s Governor’s Office of Emergency Services and FEMA disaster coordinator. “What the Partnership is getting done is unheard of,” he remarks. In the disaster management field, the Partnership’s unique model of collaboration is hailed for breaking new ground. Lurie explains the difference: “We’re not just asking the government to bail us out,” she says. “Instead, we’re asking, ‘How can we help you get this done?’ It’s incredible what can happen when instead of going after the government with pitchforks, you come to them with ideas.”

The Partnership is not just looking at this winter, but well past it, researching methods for accelerating indigenous revegetation and repopulating endangered species. “We have learned a lot from other communities in the U.S. and around the world about ways to monitor for potential debris flows,” Matthews notes. “We also study ways they form partnerships and come up with environmentally friendly solutions to these challenges. It is kind of a playbook that we look forward to sharing with other communities.”



Joe Cole:
Land use lawyer, Montecito Planning Commissioner

ENDURING FRIENDSHIPS

On a recent sunny morning, members of the Partnership gathered at Jeannine’s on Coast Village Road to reflect on what had brought them to this point. “This was the first place where I saw somebody fighting to get life back to normal,” said McElroy, noting that the eatery’s owner, Alison Hardey, offered free coffee and baked goods to the community and first responders in the earliest days of the recovery efforts. “Alison knew that people needed a place to gather and talk,” he said. “She recognized that we needed to resume the rituals of daily life.”

Shared trauma can bring a community together. Through the work of the Partnership and other initiatives, new friendships and creative collaborations will surely endure for many years to come. As Lurie puts it, “We wanted to find hope. And the more we looked around, the more hope we found – in the form of tangible and inventive technologies, some here in our own backyard. This is our home, our family, our friends. The more we come together to work proactively, the more resilient we become.”

(Publisher’s note: The Partnership seeks support from members of the community who are in a position to help. For more information, contact PartnershipSB.Org.)

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(from left) Pat McElroy, Elisabeth Fowler, Joe Cole, Hollye Jacobs, Les Firestein, Gwyn Lurie, and Brett Matthews. Missing from the photo are TPRC Partners Mary Rose and Alixe Mattingly.