Western Edition Episode 5
“The West on Fire: Smoke and Farmworkers”
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(MUSIC – PILE)

BILL DEVERELL: Hi, I’m Bill Deverell, and this is Western Edition, season one: “The West on Fire.” So far on this podcast we’ve talked about the dangers caused by wildfires. But we haven’t yet talked specifically about smoke. It can spread far beyond the fire itself, carrying with it toxic and deadly pollutants.

MICHELLE O’CONNOR: We do think that wildfire smoke certainly has its own unique effects. We also think of wildfire smoke as kind of like a threat multiplier in terms of potentially exacerbating other factors that are going on.

DEVERELL: Later in this episode, medical experts assess the harm caused by wildfire smoke. First though, let’s focus on one community that’s especially at risk. Farmworkers spend long days outdoors, in the heat, breathing in dangerous particles spread by smoke from wildfires.

MIKE MÉNDEZ: During the fires, people are coughing, they get headaches, some may even vomit. Of course you get watery, irritated eyes. And there was a recent study that was done, I believe at the University of California, Davis, that shows that wildfire smoke has been determined to be much more harmful than the pollution that comes out of vehicle exhausts.
DEVERELL: This is Mike Méndez. He’s an assistant professor of environmental planning and urban policy at the University of California, Irvine.

MÉNDEZ: In California, as you know, we’re experiencing an unprecedented increase in the frequency and severity of fire, and most importantly, extreme fire events. My first case study looked at the Thomas Wildfire that occurred in 2017 and 2018. It overlapped because it lasted 40 days into the next year, 2018. And the Thomas Fire in Ventura and Santa Barbara Counties was considered, until recently, the second largest wildfire by acreage in the entire California's history.

DEVERELL: Méndez co-authored a study in the journal Geoforum with two community organizers, Genevieve Flores-Haro and Lucas Zucker. They looked at how wildfires and other disasters affect undocumented and Indigenous people.

MÉNDEZ: In that case study that I did, we really unpacked what happened in the extreme wildfire event and looking beyond sort of the initial headlines of coastal mansions and land owners and farm owners losing their land to a fire, but looking at sort of the down slope, the more indirect impact step extreme wildfire events have on undocumented farmworkers – that are often pressured because of their socioeconomic status and immigration status as well to enter mandatory evacuation zones. These are mandatory evacuation zones that are considered extremely harmful for the general public. But they’re often asked to work in these mandatory evacuation zones to pick and harvest the crop to protect the crop before the smoke and ash starts harming some of this precious fruits and vegetables. And at that time, the farm owners and the supervisors of these farms were not required to provide what we now all know, as ubiquitous in our American language, N95 respirator masks. A couple of years ago, nobody really knew what N95 respirator masks was before the COVID-19 pandemic. But as we all know, now that they’re quite effective in keeping out fine particulate matters, such as smoke particles from breathing them in. So oftentimes, these individuals were going into these areas without the proper working gear and goggles and gloves to protect themselves. And these individuals are often undocumented. So they have no recourse to make complaints to the state or federal government for fear of deportation. In fact, Cal/OSHA, which is the California Office of Occupational Health and Safety, had a regional office in Ventura County. And during the Thomas Fire, they actually closed down the office and weren't doing any field sites because they wanted to protect their own workers. So, after advocacy and complaints from migrant rights groups to local legislators, Sacramento headquarters eventually opened that Cal/OSHA after a few days. So, quite an amount of inequality that I initially saw in this case study.
DEVERELL: Genevieve Flores-Haro is a co-author of that report about the Thomas Fire. She's the associate director of a nonprofit called the Mixteco/Indigena Community Organizing Project, or MICOP. She says the Thomas Fire really laid bare how emergency response and recovery efforts ignored the needs of farmworkers.

GENEVIEVE FLORES-HARO: I just distinctly remember the first night of the fire, you know, I was out to dinner. It was my brother's 21st birthday actually. And so we went out to dinner and, you know, the restaurant had the news playing and we're like, 'oh, that's weird. There's a wildfire in Santa Paula.' Like, not thinking much of it, you know, driving home and seeing the hillside orange, like this really eerie orange glow.

(MUSIC – BARB WIRE)

FLORES-HARO: And then, you know, a couple hours later, we all lost power in the county. And so for me, I kind of went into 'go mode' and I was like, 'well, people are gonna want to know why the power's out.' So I was looking for information, you know, just in Spanish, right? Just to push out on our organization's page. We have a radio station with a pretty wide net, and so I wanted to also push out information on the radio station’s social media page, but I couldn't find anything. And that was shocking to me. Especially because in our county, a third of the, you know, residents speak Spanish at home. And so just to find nothing and having to do that, you know, translation work in real time at like two in the morning from my car, because my car was the only thing making the phone charge, you know. It's, it was just surreal. And so a lot of the advocacy work, you know, stemmed from that, from just basic language access work.

DEVERELL: Yeah, I mean, I’m shocked too about the lack of Spanish language outreach. But I imagine that the Indigenous farmworker community that you work with speaks a multitude of languages, yes?

FLORES-HARO: Yeah, that's correct. Because I think a lot of times when folks think of farmworkers, we think about California farmworkers in particular, we think, okay, everyone's from Mexico. They all speak Spanish. And that's not the case. You know, more than half of the farmworkers in California are Indigenous. And so just even just, oh, like understanding that and understanding that the folks that are picking your strawberries, your avocados, your lemons, don't speak a language that maybe we're accustomed to like Spanish or English – we had to take on both. We had to take on Spanish. So our, our bilingual English/Spanish folks were dealing with the translations the first couple days of the fire and then our Indigenous language speakers would translate that information then into languages like Mixteco, Zapoteco, Purepecha, just to reach our community, you know, and let them know because a lot of folks
didn't realize how big the fire was. They didn't realize like how severe it was, how bad the air quality was, because information wasn't getting to them in their language.

DEVERELL: Méndez says that this area of Ventura and Santa Barbara Counties contains extremes, with sprawling coastal mansions butting up against migrant workers’ camps to the east.

MÉNDEZ: There is farming in Santa Barbara County, but the majority of the farming is, has a higher percentage in Ventura, which is east and, and further down the mountains into sort of a valley. So you have the fire reaching across county jurisdictions of course, and going downward slope and settling into the farm lands. And so you can see, there's some great pictures of the Associated Press and others, where you see that thick layer of wildfire smoke above farmworkers as they're laboring and the smoke and ash coming down.

DEVERELL: Méndez is now working on a study of farmworkers further north, in Sonoma County.

MÉNDEZ: So individuals living in Sonoma in particular have experienced multiple years of extreme wildfire events and living with that sort of disaster year after year since 2015. And so what I'm seeing early on now is this level of trauma in individuals talking about how either their disaster fatigue that people are just totally tuning out or they get sort of triggered or PTSD about these disaster events. So that's a key issue that I've seen that's different – how people are living with multiple years of not just wildfire, but extreme wildfire events.

DEVERELL: And Mike, is it somewhat ironic that now the ever presence and increased frequency of wildfire and wildfire smoke is hopefully rendering these vulnerable populations more visible to the general population?

MÉNDEZ: Sure. And the first journal article that we did in Geoforum is “The (in)visible victims of disaster: Understanding the vulnerability of [undocumented Latino/a and indigenous immigrants]” And in the word “invisible,” I have a parentheses under the I-N, the “invisible.” So these individuals, as we know, are not “invisible” in the, in the literal sense and the actual real sense. But, because they, they, these individuals have been living in these communities for decades, if not a hundred years. But they're invisible because they're rendered invisible by public policy, systemic racism, and cultural norms of who’s considered a worthy disaster victim. So intentional choices in our policy making process are rendering them invisible in the context of disaster policy. So that means that while decision-makers are making political choices, while they know that these people exist, everyone knows and can actually see them, but they’re
making political choices that are withholding vital resources, in terms of disaster preparedness, disaster recovery, or disaster resources during a disaster.

(MUSIC – LAST ROUNDP)

DEVEREL: After years of intensifying wildfires, Flores-Haro says folks in her area can sense when there’s a fire coming.

FLORES-HARO: ...cause you can smell it. There's that distinct, like smokey ashy, you know, it hits the back of your throat. And for our population, if we think about farmworkers in particular, you know, they're vulnerable for respiratory issues just because of the nature of their work, whether it's pesticide exposure, whether it's the dust that gets kicked up on the fields. So a lot of our farmworker population, you know, had preexisting like asthma or whatnot. And then you, you add that layer of wildfire and toxic wildfire, really, because what was burning, you know, wasn't trees or, they call it a wildfire or like whatever, but it's, it's homes, it's chemicals, it's asbestos. And so you, you kind of compound that with what they're breathing in on the regular and, and you have health implications on that. You know, we, we have one case that came to us again, back in 2018, of a farmworker who he was so sick, he was like, ‘you know what, I'm going to go back to Mexico. I can't work anymore because like, my asthma is so bad now.’

DEVEREL: Ed Avol is a professor of clinical preventive medicine at USC, and focuses on airborne pollutants.

ED AVOL: Yeah, so it turns out the wildfires and smoke in general is actually a pretty interesting commodity, much as air pollution is. I tend, you know, we tend to think about it as sort of a local phenomenon. But in fact, once it’s injected into the atmosphere and gets into the jet stream, it's transported hundreds, if not thousands of miles from the, the localized site of the fire. So it's not just the population that is immediately around the area and may have to evacuate because of actual or potential damage or harm due to the associated flames and fire. It actually turns out to be the case that hundreds of miles down wind there is still smoke, sustained particles, gases and particles from the, the, the conflagration that can affect people’s health many many miles away. You know, for example, last summer, across California there, you know, a couple of months of, of such poor air quality in the San Francisco Bay Area, that then blew down and became a plume that hit Southern California and then moved to the east across several other states and even hit and affected the states on the East Coast. And so, you know, we have hundreds, if not thousands of miles of downwind impact and the plumes that you could see on the, on the map estimating the increased concentrations were really quite
dramatic that it just covers such a broad area because of the, you know, the size and scope. And we were talking about millions of acres of land consumed. And of course not to mention the housing and the support infrastructure, the power lines, et cetera, all the materials that are there. We think about wildfire smoke, it just being sort of trees and bushes. And that's certainly true. But we also tend to forget all the housing, all the insulation, all the wiring, all the, all the flammables and volatiles that you have, all the gas in the gas tanks and all the paint off the cars and the walls and all the plasticizers. So there's, there's just really, it turns out to be a tremendous mix of pollutants that get into the air.

DEVERELL: Yeah. It just raises a fascinating question that different wildfires consume different fuels. And I would imagine the health effects could vary depending on what actually is on fire.

AVOL: Well, that's certainly true. It depends on what, what is burning and how long it burns and what the downwind wind trajectories are. But it also has to do with, of course, who the population downwind may be. For example, whether they're asthmatic individuals or people with other compromised respiratory or cardiovascular conditions. And so they may respond differently. And even now, during the pandemic, you know, there's concern that preexisting conditions may in fact, and it's been documented as such, make it more difficult, put people at higher risk, that if you have the comorbidity, if you get sick with COVID, you're likely to have much more of a struggle if you have preexisting disease. And so I think, to some extent, the wildfire smoke figures right into this if you think about wildfire smoke as being a very potent inspiration, of, you know, sort of outdoor air pollution.

DEVERELL: Medical professionals say it's often hard to tell exactly how smoke affects our bodies. Dr. Parveen Parmer teaches at the USC Keck School of Medicine. She's also an attending physician at LA County-USC Medical Center.

PARVEEN PARMAR: One of the things that might surprise the listeners is that there isn't just one typical case of an individual that would present after a wildfire with health effects from that wildfire. So if you think about individuals that were, you know, survivors of the Paradise fires up north, in emergency departments there certainly, there were a lot of respiratory effects. This also happened in LA County during our last big fire season. So you think about people presenting with exacerbations of their asthma or exacerbations of their underlying chronic bronchitis. You know, wildfires, spew a lot of a particulate matter or what we call PMs and volatile organic compounds, or VOCs, into the air. And if you have underlying lung disease, you know, particularly children or the elderly, you know, it's going to make all of those diseases worse and can lead to exacerbations of underlying chronic disease. That being said, there are a lot of other presentations that you see when you see a wildfire smoke and higher exposure
rates. Teasing some of those that epidemiologically can be a little bit challenging just because wildfire smoke ends up being the tip of an iceberg. Usually there's a whole set of underlying diseases and exposures, whether it's, you know, living in an urban area that has, you know, sort of baseline problems with environmental pollution, just dealing with heat exposure itself, you know, whether it's dealing with people that have higher rates of underlying disease. Some studies have shown higher rates of heart attacks and strokes, higher rates of arrhythmias and people's sort of underlying heart failure worsening, just as one example. We've also seen some studies show that pregnant women have higher rates of gestational high blood pressure actually, gestational hypertension when they have exposure to smoke. And then that's, you know, not even getting into the mental health effects and other social effects, which affect our emergency department as well.

DEVERELL: Dr. Michelle O’Connor is also at USC’s Keck School and a third-year resident physician in emergency medicine at LA County-USC Medical Center. She says she’s treated many patients who may have been experiencing the effects of smoke inhalation.

O’CONNOR: I'll kind of take you through what it's like in the actual ER. So essentially a patient comes into the ER with a chief complaint or what the main emergency that they're experiencing for that day may be. It may be shortness of breath. It may be chest pain. It may be fatigue or generalized weakness. And so the way that an emergency physician approaches that particular chief complaint is with a very open mind from the outset. So even if there was a wildfire going on and someone comes in with shortness of breath, I can't make the assumption right off the bat that the wildfire is causing that shortness of breath. Maybe they have anemia. Maybe they have some type of respiratory infection. Maybe they have COVID-19. With that said, once we do all of our diagnostic workups and everything, we can start to narrow down a bit and kind of make assumptions about what may be triggering, what, what that underlying diagnosis ends up being. So in the setting of wildfire smoke exposure, often the most obvious presentation is going to be exacerbation of underlying chronic obstructive pulmonary disease, or COPD, as well as asthma and asthma exacerbations. And so when someone comes in initially with shortness of breath, we're not making the assumption from the, from the get-go that this is, this must be due to the wildfire exposure. But the fact that we know there's a wildfire that went on or is going on, we can kind of make that pretty clear assumption that the wildfire smoke could have triggered this event.

DEVERELL: And can you talk a little bit about treatment choices? I mean, not so much for the, the related challenges of asthma, heart attack, et cetera, as you mentioned, obviously those are their own serious challenge, but if someone came in suffering from wildfire inhalation, what do you do?
O’CONNOR: So I, think I first want to just make a bit of a distinction between kind of like an acute wildfire exposure versus something that's a little bit more removed, such as like something that someone may experience who's living in the community 20 miles from a fire that's ongoing. So there's kind of the actual, like acute smoke inhalation, for example, in someone who is in a house fire, like actively fighting a wildfire, breathing in smoke, that's a different situation than someone who for example, is at a construction site, 10 miles, 20 miles from a wildfire and is having shortness of breath. So from the kind of acute smoke inhalation standpoint, there's certainly things that need to be dealt with. So acute smoke inhalation, especially depending on what the source of the fire is, you start to think about cyanide poisoning. You start to think about carbon monoxide poisoning. Oftentimes those patients may have burns associated with them. Someone who has an acute smoke exposure, who's fighting a fire, maybe a firefighter who's involved in going up to Angeles National Forest and fighting these fires, if they were to have a smoke inhalation, the concern, from our standpoint as emergency physicians, are to take that same approach that we take with every patient, which is to think about airway, breathing, and circulation. So if there’s any concern that they may have had any burns to their airway, meaning their mouth or their trachea or their windpipe, we need to control that situation pretty quickly. And oftentimes, those patients may require intubation or, you know, essentially putting a breathing tube down their throat so that we can make sure that there’s no swelling that’s going to obstruct their airway from either a burn or from irritation causing swelling to that airway. So that's a situation that we encounter in the emergency department, but certainly at much, much less frequency than we encounter patients who have a COPD exacerbation or who have one of these other downstream effects of wildfire smoke.

DEVERELL: Dr. Parmar agrees that it’s difficult to conclusively link medical issues to smoke exposure, but you can see a difference in who comes into the ER.

PARMAR: You know, during our last big wildfire season, one of the things that we did see is a real rise in the numbers of people who had exposures to the smoke and really didn't have the option of staying inside with an air purifier. So for example, people that work in construction. You know, construction sites don't always have appropriate personal protective gear for, for individuals that are on these work sites during major fires. And so people with any underlying lung disease, or even without underlying lung disease, really might suffer the effects of that. You know, it's particularly interesting to me thinking about the COVID-19 pandemic again, because I think some of the same populations overlap, right? You have people that really can't self-isolate, can't stay indoors, it's the same issue when the wildfires happen.
DEVERELL: Genevieve Flores-Haro, the migrant rights organizer, says her group has been going out into the fields to hand out N95 masks to the farmworkers.

FLORES-HARO: You know, back in 2017, 2018, you know, we were out there distributing I think up to like 15,000 masks, out here to farmworkers in Ventura County simply because their employers weren't providing them. That wasn't required for the employers to provide them. And, you know, we got into a little bit of trouble. They, there were some, some groups that went off into these fields and, you know, had the sheriff called on them for trespassing, because these are private properties, these farms. But that was the need and you had to meet the need where it was at.

DEVERELL: And I imagine the worker response was gratitude that they understand how ill-prepared they are if they don't have masks.

FLORES-HARO: Oh, absolutely. I think, even though we were getting the sheriff called on us, that's the motivation, right? Because it's like, you know, having these farmworkers tell us, you know, ‘thank you so much. Like, it's nice to know people are thinking about us. Like, I'm being thought of. Someone's taking me into account.’

DEVERELL: Mike Méndez at UC-Irvine says that while N95 masks are certainly important, farmworkers need changes at the policy level.

MÉNDEZ: This project is really aimed on social change. And as an academic, I see myself as an ethnographer of public policy and I am so happy to see how this ethnographic work on public policies is now starting to be appreciated more. And this research, we were invited to give presentations to various state and local organizations. But the two of them that I was most proud of, the first is NOAA. We were invited by the National Oceanic Atmospheric Agency to provide a qualitative briefing case study of what is happening in these wildfires. And so some of these researchers and scientists wanted to know what is happening on the ground, sort of groundtruthing. The second was that we were invited by the United Nations IOM, which is the International Organization for Migration to also provide perspective of what these wildfires meant to undocumented migrants. And the UN IOM asked us to do this because wildfires, extreme wildfires, are happening all over the world and impacting farmworkers and other migrants, or if you want – climate refugees, in Brazil and Australia, Greece, and other parts of the world. So they wanted to learn what is happening in California and how's California responding to protect some of these individuals. But in terms of the actual policy, I think first and foremost is understanding that if these individuals are going to go into these mandatory evacuation zones, there needs to be protection. There needs to be monitoring. They need to be
provided with all the right protective gear, which we're told that it's not uniformly enforced throughout the state. They're not provided with healthcare. When they do this type of work, there's no follow-up monitoring, health screening. If they do get sick, or get laid off because the farms are burned now, they're not eligible for unemployment assistance or disaster assistance at the federal level. So these individuals, and migrant rights groups, along with the Latino Legislative Caucus, during the COVID 19 pandemic had really pressured the governor. And I'm very happy that the governor created this temporary disaster relief fund to provide funding for these undocumented migrants, temporarily. But we have to make it permanent. We know that climate change is going to continue. These extreme wildfire events, extreme heat, extreme drought, extreme weather events are going to continue to happen. So we need some type of monetary fund that provides direct payment or mutual aid to these individuals that are experienced disaster.

DEVERELL: Genevieve Flores-Haro says she’s seen some positive changes in the fields, thanks to organizing efforts and lobbying for farmworker rights.

FLORES-HARO: So as a result of some of our advocacy work, you know, the County hired a Spanish-speaking Public Information Officer for the first time. And so, you know, now there's content being put out in English and in Spanish. You know, other advocacy work that we've supported has included the creation of a farmworker resource program here in our county. It's the first of its kind in the state of California. And, and part of the design of that program is they need to have trilingual staff, right? And so these folks that are directly engaging with farmworkers are trilingual; they're English, Spanish, Mixteco speakers. And that team's grown from a team of three to about five, five or six now. So it's been really incredible to see that, that kind of growth and how that team has supported like COVID outreach and, you know, prior to COVID, you know, census outreach. So there's that, and then even more so taking it on a state level, you know, getting regulations on the books. There's a Cal/OSHA regulation that, you know, specifies the need that you, after a certain percentage on the Air Quality Index that outdoor workers need to be provided a mask by their employers, right? So things that weren't there before, they're now, you know, and, and taking it a step further when we were looking at planning for the next disaster, there is legislation that passed a couple of years ago that's requiring cultural proficiency in emergency response plans. And that's that's county by county that, you know, they're taking their plans and they're kind of reworking it to make sure that we don't forget language and culture, you know, as they're responding to things like wildfires.

DEVERELL: Dr. Parmar says that wildfire smoke is far from an isolated issue, exposing and exacerbating many other health conditions and social problems and suggests that we need even broader policy responses to address the widespread impact of smoke.
PARMAR: What's interesting, and I think also really problematic about wildfires, is that wildfire smoke affects everything from the cellular level where these inflammatory markers increase, and, you know, you have these increased catecholamine surges that can lead to heart attacks and strokes, you know, potentially increasing rates of gestational hypertension among pregnant women and leading to low birth weight. All of that. All the way to sort of these broad social categories where we're talking about increases in homelessness, increases in levels of unemployment, interpersonal violence. And so when I think about the research that is needed, I think we really have to start to think about as a medical community and a public health community, you know, where are all of the impacts happening? And really list those out one by one. And then what I'd really love to see is, how can we prioritize involvement of the most vulnerable populations in setting research agendas, and really identifying strategies that work for them? So there's, in public health, we have a set of research strategies called community-based participatory research, which is where the research questions, ideas, interventions are really generated at the community level. We know that wildfires have a disproportionate impact on the elderly, on children, on obese individuals, pregnant women, and people of lower socioeconomic status. And so I think really prioritizing research around the populations that are most affected is one really important way to think about an approach to that research.

DEVERELL: Genevieve Flores-Haro says she sees those kinds of unequal impacts in the communities she serves as well.

FLORES-HARO: Our farmworker, Indigenous community, you know, a lot of them are undocumented, so they don’t have access for example, to, to healthcare. So they're not getting access to preventative care. You know, a lot of our families as farmworkers make $15,000, $20,000 a year, if that, and so there's no way for them to, you know, buy an earthquake preparedness kit or to purchase, you know, whatever is recommended by, by FEMA in order to protect your home – you know, extra water, extra food. In the case of wildfires like filters, filtration systems to keep your home air quality safe. You know, and because of, of the wages, you know, a lot of our families live multiple families to, to a single home. And so, taking that into consideration with the wildfire, you know, as a renter, you know, when you lose housing stock, you know, oftentimes these landlords were pushing out renters. So there's, you know, displacement that's happening there. And so it's, it's all related. It's all, that's at the forefront of the work we do on a day-to-day. And then you compound that with a wildfire and it just becomes even more exacerbated.

DEVERELL: As wildfires intensify and air pollution increases, Dr. Avol says larger sustainability challenges will only become more urgent.
AVOL: You know, in some ways the solution to many of our air pollution problems has to fundamentally do with urban land use and land use policies in general. You know, as we continue to sort of build homes, build residences, build neighborhoods right up to and interfacing with a forest, et cetera, we have to be ever mindful and ever vigilant of this, you know, this careful nuance sort of ballet we do with the nature around us and think about what the opportunities and potential risks are for, you know, wildfires to occur. That means we need to be smarter about the materials that we use to build, about the location where we build, about how we build, about what we understand might be the case and how we respond to it. So put into place, more informed education and evacuation plans, but it also means we need to give thoughts about, you know, some places may just not be sustainable. When you think about water here in the Southwest, of course, in California and the west coast, we have, you know, ongoing drought and water problems. That also is an effect of climate change in addition to the wildfires. And so we need to think about how that all fits together. And so I think going forward, it's an exciting time. I think we can, we, as we gather this information and we can make better choices. We can build better, use better construction materials. We can be a little bit smarter about where we plan, what we do, and respond to it. I think, you know, for some of the lightning strikes or natural phenomena, that's going to be difficult and that may rely on different forest management techniques. But for us, the interface between sort of human habitation and the so-called wilderness is something I think we need to re-examine, be more thoughtful about it. I'm not saying it can't coexist. I'm just saying we need to be more thoughtful about how we interact in those ways.

(MUSIC – FRAIL)

DEVERELL: Thanks to Mike Méndez, Genevieve Flores-Haro, and Drs. Michelle O'Connor, Parveen Parmer and Ed Avol for joining me on this episode. I’m Bill Deverell. Next time on Western Edition, the incarcerated women on the front lines of fighting fires:

PROMO CLIP FROM THE NEXT EPISODE (VOICEOVER BY JAIME LOWE): It's probably one of the hardest jobs right now to be a firefighter, both physically, mentally, and spiritually. And then to do that while you’re carrying the emotional burden of being a prisoner, it just seems impossible to me.

DEVERELL: Western Edition is produced by Avishay Artsy, Katie Dunham, Elizabeth Logan, and Jessica Kim. Our music was written and recorded by I See Hawks in L.A. Western Edition is a production of the Huntington-USC Institute on California and the West. Please rate, review and subscribe to the show, and share it with a friend. Thank you, and be well.