

Winding down

CalRecycle nears end of Camp Fire debris cleanup

As California braces for peak fire season, the most extensive post-fire cleanup it has ever taken on is nearly complete. Crews have hauled off more than 3.6 million tons of debris in Butte County—twice what was removed from the World Trade Center site after the attacks on Sept. 11, 2001, in New York City.

The painstaking and expensive cleanup process—more than \$1 billion in public money spent so far from an allocated \$1.75 billion—has been necessary not just to allow residents to rebuild and schools and businesses to reopen, but also to make the burn scar environmentally safe. Potential dangers still lurk for those who are resuming their lives in the area and, more acutely, for the hundreds of workers who have been sifting through the fire remnants, sorting and removing charred hulks of cars, mobile homes, melted metal and tons of dirt.

The state Division of Occupational Safety and Health enforces requirements for workers to wear safety gear, lending an otherworldly

About this story:

It is an abridged version of the original, published by CalMatters.org, an independent public journalism venture covering California state politics and government.

aspect to the region, especially in Paradise: The already-barren landscape is teeming with people in white protective suits and booties, wearing hard hats and breathing through respirators.

If it seems like overkill, it's not.

"Think about all the things in a house," said David Hornung, who oversaw the Occupational Safety and Health's response to the Tubbs Fire that ravaged Santa Rosa in October 2017. "There are televisions, electronics, dishwashers; it's really complex." Computers and other electronics contain lead,

mercury, arsenic and other dangerous chemicals.

"Then you have plastics and composite material," which may release hydrochloric acid, sulfur dioxide and heavy metals when burned. "You get a real complex mixture of chemicals."

Debris cleanup is free to residents who register with local authorities, on a first-come, first-served basis. Generally, however, work on schools and public buildings has taken priority. The state hires specialized companies to do the work.

The Camp Fire was caused by utility equipment owned by PG&E, which has agreed to pay billions in damage claims. Some residents have chosen to pay for cleanup work themselves or use their homeowners' insurance, potentially affording them a faster turnaround. Temporary fencing around town is plastered with phone numbers of cleanup companies advertising their availability.

CalRecycle officials say they are unaware of another state or country that operates a similarly extensive post-wildfire environmental cleanup. The program has evolved since 2007, in the wake of a huge firestorm across Southern California, into a sophisticated machine involving numerous state agencies,

led by the Office of Emergency Services and CalRecycle, which have devised a step-by-step protocol.

Pauline Totten, who supervises fire debris

removal projects for CalRecycle, has been on the Butte County job since January. Her hard hat is speckled with decals commemorating work on previous fires, but the scope of this cleanup is unprecedented, she said.

"Normally we have one contractor. On this we have three," she said. As many as 3,000 workers took part in the project, officials said.

After nine months, the work is winding down, with 99 percent of the sites cleared. On a recent day, crews were tackling the last of the major debris areas. Totten watched as machines scraped layers of soil and plopped their loads into lines of dump trucks idling along the town's main drag. A worker trained a powerful hose on the piles of dirt to keep the dust down.

Work is performed parcel by parcel, in prescribed phases. First, the state Department of Toxic Substances Control removes such hazardous waste as propane tanks and asbestos, commonly found in older buildings. Other state agencies collect air samples.

Although much of the town literally disap-

A worker douses potentially contaminated soil in Paradise, 11 months after the Camp Fire.

PHOTO BY ANNE WERNIKOFF/CALMATTERS



peared in a column of smoke, some material ended up in the soil. Before wholesale dirt removal took place, a contractor collected soil samples at different depths from 187 locations and analyzed them to establish what was likely to have been in the ground before the fire and to determine the extent of removal needed.

Under Totten's supervision, crews are beginning their assessment of what was once a sprawling mobile-home park. Someone scrawled addresses on the asphalt in front of the gutted homes to help identify them.

The state requires extensive mapping of sites before cleanup can begin: "Measure and record foundation, structures, debris, utility infrastructure and property-specific hazards," the guidelines say.

At the mobile-home park, a technician sketched several chimneys on his drawing of the site; the chimneys, a common post-fire hazard, will be knocked over by heavy equipment. An air monitor was strapped to the technician's waist.

Totten said her crews convene on the ground only after state workers have swept the area: Inspectors left behind a white X on burned-out vehicles from which they removed batteries, which contain dangerous chemicals.

Next will come crews that sort metals to be trucked to recycling facilities. Other debris is taken to designated landfills. There has been so much waste that some facilities have waivers allowing them to accept more than their usual storage limits, officials said.

When the site is ready for the final step, it will be leveled and, if necessary, erosion control measures will be taken.

Totten said the work is demanding, but she never forgets that "debris" means something more precious to those who lived there.

"I look at this and see that this was someone's home," she said, gesturing around the mobile home park, strewn with mangled bicycles and rusted cars. "My grandmother could have lived here."

—JULIE CART

Wish Someone Would Listen?

Someone to talk to when life presents challenges.
Confidential • Non-crisis • Peer-to-peer support

northern valley talk line
1-855-582-5554

7 days a week
4:30 pm - 9:30 pm

Supported by BCDH and MHSA funding.



NVCSS
Northern Valley
Catholic Social Service



Residential & Commercial Carpet, Rugs & Upholstery Cleaning

CLEAN KING
by D♥ Inc.

By Michael DeHart • 530.345.9907

Best Diner in Chico!

2012-2019
LIVING LEGEND
Best of Chico
8 YEARS

15% OFF
Total Guest Check
VALID MON-THUR

COZY
DINER

Breakfast/Lunch/Dinner
Not valid with any other discount,
coupon or 2 for 1 special pricing.
Expires 10-30-19



1695 MANGROVE AVENUE • 530-895-1195