

**THOMAS FIRE**  
**SANTA BARBARA COUNTY**  
**ASH MANAGEMENT PLAN**



# **Santa Barbara County Plan for Ash Management for the Thomas Fire**

## **Situation Summary:**

### **Thomas Fire Situation Summary**

The Thomas fire began burning December 4, 2017 in Ventura County. Shortly after it began Santa Barbara County experienced smoke and ash fallout from the wildland fire. On December 5, 2017 Governor Brown declared a State of Emergency for the county of Ventura. On December 7, 2017 Governor Brown extended the State of Emergency to cover the County of Santa Barbara. On December 8, 2017 President Trump proclaimed a Presidential Declaration of Emergency for the Thomas fire. Later on December 8, 2017 the Santa Barbara County Director of Emergency Services proclaimed a local emergency for Santa Barbara County. As of, December 13, 2017 the Thomas fire has burned 237,500 acres. Up to this point Santa Barbara County has experienced a large on-going ash deposition problem across large areas of the South Coast communities and in the North County in the Santa Ynez Valley. As citizens and jurisdictions try to resume some semblance of normal, ash clean-up efforts are just beginning to be undertaken. Over 100,000 acres of the fire has occurred on the Los Padres National Forest in wildland areas. Although over 900 structures have been destroyed and over 200 structures have been damaged, most of the ash deposition appears to be related to the consumption of grass, brush, trees, and shrubs (organic matter). Over 100,000 acres of the fire has occurred on the Los Padres National Forest in wildland areas. The power transmission lines are compromised and there is a possibility of a long term power outage that could impact the south coast.

## **Ash Management Plan Objectives:**

### **Objectives**

- To provide jurisdictions, special districts, Cities, owners and maintainers of public right-of-way, commercial property owners, property maintenance services, landscape maintenance services, street sweeper service providers, and others with direction and industry best practices regarding the proper clean-up, remediation and disposal of ash waste matter.
- Protect the health/welfare and safety, atmosphere, streams, storm drain systems, ground water, and bodies of water (fresh and salt water) from improper approaches clean-up and disposal.
- To provide practical “do’s and don’ts” options for those engaged in clean-up efforts.
- To provide additional references and resources regarding ash clean-up and management as part of a comprehensive outreach program.

## Ash Clean-up Best Practices

The risk to your health from unhealthy air quality is based on fine particles that are not visible. Decisions about when to clean should be based on the level of fine particles and the air. Local air quality information is available at [www.ourair.org/todays-air-quality/](http://www.ourair.org/todays-air-quality/)

To clean ash, **wear a mask** and remember the three C's, Control, Contain and Capture.

**Control:** Try to control the amount of ash particles that get re-suspended into the air. Avoid using any equipment that blows ash into the air such as standard shop vacuums or leaf blowers. Instead, use household vacuums or shop vacuums with HEPA filters.

**Contain:** Contain ash by gently sweeping indoor and outdoor hard surfaces followed by wet mopping with a damp cloth. Ash may be disposed of in regular trash receptacles in plastic bags. You may also allow water from cleaning to drain into landscaping as ash will not hurt plants or grass.

**Capture:** Protect storm drains from ash and any cleaning chemicals used while cleaning by diverting away from storm drains or recapturing. Ash is highly acidic, which in large amounts can be harmful for people, the environment and aquatic life.

**We do not advise ash clean-up while ash is still falling and the situation is unpredictable. Wait until conditions improve.**

The following is recommended for safe clean-up.

- Avoid skin contact with ash. Although ash from organic materials like trees and brush is not harmful to the skin, ash from burned homes and other items will likely contain metals, chemicals, and potentially asbestos, items that may be considered toxic if breathed in or touched with wet skin. If you are cleaning ash from a burned home or car, take special care to protect your health. If you do get the ash on your skin, wash it off immediately. Some wet ash from burned homes or cars can cause chemical burns.
- Inhaled ash may be irritating to the nose, throat and lungs. Use protective wear. Wear a tight fitting N95 respirator mask or P-100 mask, gloves, long-sleeved shirts and long pants when cleaning up ash. No one with heart or lung conditions should handle ash clean up.
- Avoid getting ash into the air as much as possible. If sweeping up ash, sweep gently. Use water and wet cloth or mop to clean items and surfaces.
- Avoid doing activities that stir up ash. Do not allow children to play in ash or be in an area where ash-covered materials are being disturbed. Wash ash off toys before children play with them.
- Clean ash off pets.
- Wash food that has been exposed to ash prior to consuming.

- Commercial cleaning may be needed for carpet, upholstery, and window treatments. Clean and sanitize utensils, glasses, dishware and food contact areas such as countertops and cupboards. To decontaminate these items:
  1. Wash them in a strong detergent solution
  2. Soak in a bleach solution of one teaspoon of bleach per quart of water. Soak for 15 minutes.
  3. Wash, rinse, air dry

**DO NOT USE LEAF BLOWERS** under any circumstances as they blow the fine particles around and create more health concerns. Alternatives to leaf blowers include:

- Sweep gently with a push broom, then hose lightly with water. Take care to conserve water. Ash can be bagged and put into trash cans.
- Using a shop vacuum equipped with a high-efficiency particulate filter (HEPA) and a disposable filter bag.

## **STREET SWEEPING**

Street sweepers can be very helpful, but they can also create a nuisance. It is recommended that regenerative vacuum PM10 efficient sweepers be used over conventional if available. They are “state of the art”, but very effective when operated within their design limits. **All street sweepers must be operated within their design limit, typically only 3-5 mph, to be effective.**

Street sweeping is often the most practical, and has the advantage of removing trash, litter and various other debris from the roadways. However, mechanical sweepers often create as much dust as they prevent. Some sweeper designs include a water spray ahead of the sweeper to control dust, but that often just wets the silt and allows it to cling to the road or gutter surface, rather than being swept up. Vacuum sweepers are far more effective at collecting and removing road dust. Street sweepers are now available equipped with air jets to blow silt from the cracks in the street, coupled with high capacity vacuum systems to prevent creation of a dust cloud during the sweeping operation, combined with high efficiency air filters on the discharge of the vacuum systems to capture more than 80% of PM<sub>10</sub>. However, even these most effective street sweepers must be operated within strict design guidelines to achieve 80% cleanup efficiency. Street sweepers are typically designed to operate at speeds of less than 5 mph. It is common to see street sweepers operating at 10-25 mph, particularly on freeways. At speeds greater than 10 mph, street sweeping can aggravate road dust problems by re-entraining road dust rather than recovering it.

## **Outreach Messaging to:**

- Cities and County Departments
- Special Districts including Water, Sanitary, and Transportation
- Waste Haulers
- Landscape professionals

- Businesses
- School Districts
- Chambers of Commerce
- Street Sweeping Contractors and other professionals involved in clean-up and disaster remediation.
- Media (TV, radio, etc.)
- Social Media

## Additional Resources

County of Santa Barbara Fire Cleanup and Health Resources

- <http://countyofsb.org/cleanup.sbc>

CA Environmental Protection Agency Disaster Clean-Up

- <https://calepa.ca.gov/disaster/fire/>
- <https://calepa.ca.gov/disaster/debris/>

CA Wildfires Recovery Information

- <http://wildfirerecovery.org/services/health-information/>

CA Air Resources Board Safe Cleanup of Fire Ash

- <https://www.arb.ca.gov/carpa/toolkit/emerg-response/safe-cleanup-fire-ash.pdf>

CA Department of Public Health Return Home Ash Guide (English and Spanish)

- <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/CDPH%20Document%20Library/ReturnHomeAshGuide.pdf#search=ReturnHomeAshGuide>
- <https://www.cdph.ca.gov/Programs/CCDCPHP/DEODC/CDPH%20Document%20Library/ReturnHomAshGuide-Spanish.pdf>

Center for Disease Control - Worker Safety

- <https://www.cdc.gov/disasters/wildfires/pdf/firecleanupworkers.pdf>

Santa Barbara Air Pollution Control District

- <https://www.ourair.org/>