Safe Cleanup of Fire Ash and Debris

The local fires have resulted in large volumes of fire ash and debris throughout San Diego County. When mandatory evacuations are lifted, residents who return to their effected homes and neighborhood should use caution when they come in contact with these materials.

According to the California Department of Health and Human Services, ash deposited by forest fires is relatively nontoxic and similar to ash found in fireplaces, however, any ash—particularly from ash and debris found inside burned structures—will contain small amounts of cancer-causing chemicals or carcinogens. It’s important to note that ash may be irritating to the skin (especially to those with sensitive skin) and if breathed could irritate the nose and throat causing coughing and even trigger asthmatic attacks in people who have asthma.

In an effort to avoid possible health problems the California Environmental Protection Agency has developed a list of recommended steps to follow when cleaning up after a fire:

- Do not allow children to play in ash.
- Wash ash off children's toys before children play with them.
- Clean ash off house pets.
- Wear gloves, long sleeved shirts and long pants and avoid skin contact.
- If you do get ash on your skin, wash it off as soon as possible.
- If you have a vegetable garden or fruit trees, wash the fruit or vegetables thoroughly before eating them.
- Avoid getting ash in the air as much as possible. Do not use leaf blowers or take other actions that will put ash in the air.
- Gentle sweeping of indoor and outdoor hard surfaces followed by wet mopping is the best procedure in most cases. A damp cloth or wet mop may be all that is needed on lightly dusted areas.
- Use a HEPA-filter vacuum cleaner. Shop vacuums and other common vacuum cleaners do not filter out small particles, but rather blow such particles at the exhaust into the air where they can be breathed.
- Wear a well-fitted dust mask for protection during cleanup. A mask rated N-95 or P-100 will be more effective than simpler dust or surgical masks in blocking particles from ash. In general, many ash particles are larger than those found in smoke; thus, wearing a dust mask can significantly reduce (but not completely eliminate) the amount of particles inhaled.
- Persons with heart or lung disease should consult their physician before using a mask during post-fire cleanup.
- Avoid washing ash into storm drains whenever possible.
- Collected ash may be disposed of in the regular trash. Ash may be stored in plastic bags or other containers that will prevent it from being disturbed. If ash is wet down, use as little water as possible.

What to do when ash stops falling

Tips for Cleaning Your Home and Yard

Falling ash is a problem while fires continue to rage throughout the County. But after the flames are gone and it stops coming down, cleaning your house, car, boat and yard will be a problem. Because runoff water filled with ash can clog storm drains and pollute our waterways, you need to take steps to minimize the impact. There are several things you can do:

- Determine if ash and debris can be contained and cleaned up without washing material into the storm water system
- Wash ash and debris into landscaped areas wherever practical
- Use a damp mop to clean up ash and debris from small areas
- Dampen accumulated ash and debris and scrape it up or vacuum it up using an adequate filtering vacuum
- Take your car to a car wash or wash it over a vegetated area such as your lawn
- If washing your roof, redirect downspouts to landscaped areas
- Use a high efficiency HEPA-type vacuum to clean your indoor carpets
- Use a damp cloth to pick up dust from smaller surfaces
In relation to clean up, residents and volunteers should use caution since the clean-up process involves ashes and other particulates: People with lung or heart problems should avoid clean-up activities and areas where dust or soot are present. Thoroughly wet dusty and soot area prior to clean-up. This will help to reduce the amount of particulates becoming air-borne. Wear an appropriate dust mask during clean-up. If exposure to asbestos or other hazardous materials are suspected, do not disturb the area. Dust masks do not protect against asbestos.

What to Do After a Wildfire

- Use caution and exercise good judgment when re-entering a burned wildland area. Hazards may still exist, including hot spots, which can flare up without warning.
- Avoid damaged or fallen power poles or lines, and downed wires. Immediately report electrical damage to authorities. Electric wires may shock people or cause further fires. If possible, remain on the scene to warn others of the hazard until repair crews arrive.
- Be careful around burned trees and power poles. They may have lost stability due to fire damage.
- Watch for ash pits and mark them for safety. Ash pits are holes full of hot ashes, created by burned trees and stumps. You can be seriously burned by falling into ash pits or landing in them with your hands or feet. Warn your family and neighbors to keep clear of the pits.
- If a power line or pole should fall next to you, hop out of the area. You are less likely to be shocked if you are hopping.

Returning to Your Home

- If there is no power, check to make sure the main breaker is on. Fires may cause breakers to trip. If the breakers are on and power is still not present, contact the utility company.
- Inspect the roof immediately and extinguish any sparks or embers. Wildfires may have left burning embers that could reignite.
- For several hours afterward, recheck for smoke and sparks throughout the home, including the attic. The winds of wildfires can blow burning embers anywhere. Keep checking your home for embers that could cause fires.
- Take precautions while cleaning your property. You may be exposed to potential health risks from hazardous materials.
  - Debris should be wetted down to minimize health impacts from breathing dust particles.
  - Use a two-strap dust particulate mask with nose clip and coveralls for the best minimal protection.
  - Wear leather gloves to protect hands from sharp objects while removing debris.
  - Wear rubber gloves when working with outhouse remnants, plumbing fixtures, and sewer piping. They can contain high levels of bacteria.
  - Hazardous materials such as kitchen and bathroom cleaning products, paint, batteries, contaminated fuel, and damaged fuel containers need to be properly handled to avoid risk. Check with local authorities for hazardous disposal assistance.
- If you have a heating oil tank system, contact a heating oil supplier for an inspection of your system before using. The tank may have shifted or fallen from the stand and fuel lines may have kinked or weakened. Heat from the fire may have caused the tank to warp or bulge. Nonvented tanks are more likely to bulge or show signs of stress. The fire may have loosened or damaged fittings and filters.
  - Visually check the stability of the trees. Any tree that has been weakened by fire may be a hazard. Winds are normally responsible for toppling weakened trees. The wind patterns in your area may have changed as a result of the loss of adjacent tree cover.
  - Look for burns on the tree trunk. If the bark on the trunk has been burned off or scorched by very high temperatures completely around the circumference, the tree will not survive. Where fire has burnt deep into the trunk, the tree should be considered unstable.
  - Look for burnt roots by probing the ground with a rod around the base of the tree and several feet away from the base. Roots are generally six to eight inches below the surface. If the roots have been burned, you should consider this tree very unstable, and it may be toppled by wind.
  - A scorched tree is one that has lost part or all of its leaves or needles. Healthy deciduous trees are resilient and may produce new branches and leaves as well as sprouts at the base of the tree. Evergreen trees may survive when partially scorched. An evergreen tree that has been damaged by fire is subject to bark beetle attack. Please seek professional assistance from the forestry service concerning measures for protecting evergreens from bark beetle attack.

Clean up around the home and in the landscape

Issued by the County of San Diego and the San Diego Regional Water Quality Control Board

Due to the recent fires, the San Diego Region is experiencing significant ash and debris deposition. County public health officials are recommending residents and businesses avoid using cleanup methods that may create additional health risks by re-suspending ash and particulate matter.
Although health protection should always remain the first concern during cleanup, it's also important to try and minimize the amount of runoff containing ash and debris that enters the storm water conveyance system (e.g., streets, gutters, culverts, and ditches). This ash and debris will ultimately be discharged untreated into creeks, bays, lagoons, and the ocean, where it can be detrimental to public and environmental health.

To protect both public health and the environment, the County and the San Diego Regional Water Quality Control Board are providing the guidance below for use while cleaning up ash and debris. This guidance will be posted on both the County of San Diego, Department of Public Works and Regional Water Quality Control Board websites. It should be noted that these guidelines apply only during the current emergency situation; additional requirements regarding discharges to the storm water conveyance system apply under normal conditions.

During the fires, many areas of the County are also under restricted water usage; some clean-up efforts may need to be delayed until these restrictions are removed.

One thing to note is that the ash is typically acidic. This is fine if it is just in a dust form, but as soon as it mixes with water it will become active. While this wouldn't be a good thing for the paint work of your car, it is ok for the soil. Our soil is very alkaline, so adding the ash to it will help balance the pH out a little.

**Exterior Clean-up**

Try to wait until ash has stopped falling before cleaning up. This will limit the number of cleanup efforts needed, which can help reduce the amount of wash water entering storm water conveyance systems and receiving waters. As a first step for cleaning, try to determine if ash and debris can be contained and cleaned up without washing the material into the storm water conveyance system. Wet clean up methods to consider include:

- Wash ash and debris into landscaped areas wherever possible;
- Use a damp mop to clean up ash and debris from small areas, such as patios;
- Dampen accumulated ash and debris and scrape it up or vacuum it up using an adequate filtering vacuum;
- Clean your car by taking it to a car wash, or wash the car over a vegetated area such as your lawn; and
- If washing roof areas, redirect downspouts to landscaped areas. If the above methods cannot be used, and washing of ash and debris to the storm water conveyance system is necessary, use as little water as possible and try to filter the wash water before it enters the storm water conveyance system. Place gravel bags, filter fabric, fiber rolls, etc., in front of storm drains to capture ash and debris. Scoop up captured ash and debris and dispose of appropriately.

**Interior Clean-up**

Minimize re-suspending settled dust when cleaning interior areas by using wet methods or adequate filtering vacuums. Typical household vacuums may pickup and re-suspend settled dust.

- For carpets, use of a high efficiency, HEPA-type vacuum is recommended.
- Use a damp cloth to pick-up dust and trap it on the cloth for small horizontal surfaces.
- Clean the cloth in water as needed; dispose of it to the trash when it becomes too dirty for continued use. Dispose of dirty water into the sewer system.
- For non-porous surfaces like tile or vinyl floors, use a damp mop to trap the dust. Clean the mop as needed in water, and dispose of dirty water into the sewer system.

**Other Issues**

- Construction, industrial, and other facilities operating under a permit with the San Diego Regional Water Quality Control Board should implement their Storm Water Pollution Prevention Plans (SWPPPs), or equivalent plans, to the extent possible when dealing with ash and debris cleanup. Where following a SWPPP or other plan is not possible, the above guidance should be used.
- If pools are to be drained for cleaning, the pool water should be free of chlorine residual and should have low copper sulfate concentrations.