# WELCOME TO THE EL DORADO COUNTY AIR QUALITY MANAGEMENT DISTRICT'S BURN VIOLATORS COURSE

In an effort to emphasize public awareness about the health and environmental effects of burning, the Air Quality Management District (AQMD) developed this course as an educational alternative to first-time violators of the County's Open Burning Rule 300. Successful course completion will provide a credit for up to \$150 of a monetary penalty associated with a Notice of Violation (NOV) from AQMD. A monetary reduction in penalty is not available to repeat violators.

## COURSE STRUCTURE

The Course contains 8 Modules covering various topics related to Open Burning (outdoor burning) in El Dorado County as follows:

MODULE 1 Health and Environmental Effects of Smoke MODULE 2 Regulatory Standards for Particulate Matter **Burning Alternatives** MODULE 3 MODULE 4 Burning Safety MODULE 5 **Burn Conditions** MODULE 6 Other Burn Requirements Forest Management Burning MODULE 7 MODULE 8 Woodstove Replacement Incentive

Each module will take between 5 and 15 minutes to complete. At the end of each module, there is a test with multiple-choice answers. All tests must be completed with 100% accuracy in order to receive credit for the Course and \$150 reduction in fine. If your score is less than 100%, you must repeat that Module and receive 100% correct score. You do not have to complete all 8 Modules at once and can return to complete the remaining Modules at a later time.

## HOW TO BEGIN

- 1. Enter your User Name and Password supplied in your Settlement Proposal Letter. If there was no User Name and Password supplied, please contact the District at (530) 621-7501 to obtain them.
- 2. Read each Module carefully.
- 3. Answer the questions at the end of each Module. 100% correct answers required on each test. If you answer one or more questions incorrectly, start the Module over.
- 4. Once all 8 Modules have been completed with 100% correct answers, log out of the Course, call AQMD at (530) 621-7501 or email <u>aqmd@edcgov.us</u>, and notify staff that you've completed the Course. Staff will verify all answers are correct before issuing an NOV credit.

Take your time and read all the material. The focus of this Course is education.

AQMD welcomes any feedback concerning the Course content, online layout,

etc.

### Health and Environmental Effects of Smoke

#### **Burning Household Trash**

Smoke from burning trash can have both short-term and long-term health effects. Trash contains plastics, metals, and synthetic materials that create Toxic Air Contaminants (TACs) when burned. These TACs include dioxins, benzene, PCBs (polychlorinated biphenyls), toluene, polycyclic organic matter and other compounds. TACS are known to cause respiratory ailments, headaches, stress human immune systems, and are potentially carcinogenic (i.e., cancer-causing). Short-term effects include burning or itchy eyes, shortness of breath, and asthma attacks. Long-term effects may include respiratory disease, lung or immune system damage, cancer, and premature death. Infants, small children and the elderly are especially sensitive to the toxic compounds produced by trash.

Toxic Air Contaminants (TACs) in smoke from trash can travel long distances and deposit on soil, plants and in water. The largest source of dioxin emissions is the uncontrolled burning of household trash. The ash in a burn pile also contains toxic pollutants which can spread into the soil and water. Animals and fish can ingest the pollutants and accumulate them in their fatty tissue; plants can also absorb them.<sup>1</sup> When contaminated food is eaten, the pollutants are passed on to people. Simply avoiding the plume of smoke does not eliminate potential health risks.

The California Air Resources Board determined the health effects from burning household trash is so severe they enacted statewide rules banning household waste burning and burn barrel use in 2004<sup>2</sup>. District Rule 300 Open Burning Section 300.1.E.5.c also prohibits the burning of household trash.

<sup>&</sup>lt;sup>1</sup>US EPA website: <u>https://www.epa.gov/dioxin/dioxins-produced-backyard-burning</u>

<sup>&</sup>lt;sup>2</sup>CARB website: <u>https://ww2.arb.ca.gov/news/garbage-burning-now-banned-statewide</u>

## **Burning Wood & Vegetation**

While trash burning is always prohibited because of these dangers, even smoke from the legal burning of vegetation can pose a threat to your health. Wood smoke contains a hazardous mixture of chemical substances such as carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOCs), dioxins, polycyclic aromatic hydrocarbons (PAHs) and particulate matter (PM). Some of the VOCs and PAHs are irritating, toxic, and/or cancer causing. The chemical makeup and total amounts of these pollutants depend on how the wood is burned. The more completely wood is burned, the more usable energy is produced and less harmful chemicals are emitted.

One of the greatest human health threats from smoke, indoors or outdoors, comes from PM. Wood smoke PM is composed of wood tars, gases, soot, and ashes. Particulate matter is a generic term for particles suspended in the air, typically as a mixture of both solid particles and liquid droplets. The size of particles affects their potential to cause health effects. Small particulate matter with diameters of less than or equal to 10 microns (PM10) or 2.5 microns (PM2.5), can cause burning eyes, runny nose, and be inhaled into the deepest recesses of the lungs where they stay for long periods of time. Breathing PM10 and PM2.5 can lead to bronchitis, chronic respiratory issues and heart disease.



Diameter Comparison: Human Hair, Sand, PM<sub>10</sub>, and PM<sub>2.5</sub>

Short-term exposures to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may increase susceptibility to respiratory infections. To learn more about asthma, visit <u>www.epa.gov/asthma</u>, <u>www.noattacks.org</u> or <u>www.cdc.gov/asthma</u>. To learn more about wood smoke health effects, view US EPA's Health Effects of Breathing Wood Smoke

## Smoke in the "Breathable Zone"

Smoke does not always travel up and away, dispersing as it goes. Frequently in the evening and morning in mountain valleys and low-lying areas, temperature inversions can trap smoke near the ground. Inversions occur when air near the ground is cooler than the air above, preventing the upward movement of smoke. The lid effect of inversions, coupled with a drop in wind speed, causes smoke and pollutant accumulation in the "breathable zone" near the ground. Smoke near the ground can also reduce visibility on roadways increasing safety hazards and has caused severe vehicular accidents.





Photo: Makah Tribe

## How to Reduce Adverse Health Effects from Burning

Reduce adverse health effects by burning only on burn days, burning only allowed materials, burning properly and/or employing one of the many alternatives to burning. Allowed materials include vegetation from trees, vines, brush, leaves, lawn clippings and dry plants originating on the property where the burning will occur. Observe minimum drying times of three days for leaves and pines needles, and six weeks for trees, stumps and large branches greater than six inches in diameter. These time periods are minimums. Longer drying periods may be necessary to ensure smoke emissions are minimized. Maintain a hot fire, so that less air pollution is created. Locate your pile as far away from neighbors and residences as possible. Be mindful of the wind patterns and the direction of the smoke plume. Curtail burning if smoke drifts toward your neighbors and becomes a nuisance. Avoid burning during the morning or early evening to avoid inversion layer conditions. Remember, localized weather patterns and topography can create conditions unfavorable to burning, even if it's a Burn Day for the region.

## Moisture in Wood

Burning wood not properly dried (seasoned) generates much more smoke than dry wood. The US Environmental Protection Agency's *Burn Wise* Program has produced these two Public Service Announcements on the topic.

"Wet Wood is a Waste" (2 minute video) explains how to use a simple moisture meter to test wood to see if it is dry enough to burn. Moisture meters are available in all sizes and can cost as little as \$20. Properly dried wood should have a reading of 20% or less.

#### http://www.youtube.com/watch?v=jM2WGgRcnm0

"Split, Stack, Cover, Store" (2 minute video) provides four easy steps on how to dry wood for proper use in wood stoves or fireplaces. They are:

- Split wood to a variety of sizes but no larger than a six-inch wedge
- Stack wood away from a building and off the ground on a pallet with split side down to promote drying
- Cover the top of wood with a tarp or woodshed
- Store wood to allow it to dry. This can be 6-12 months, depending on the type of wood.

http://www.youtube.com/watch?v=yo1--Zrh11s

## **Regulatory Standards for Particulate Matter**

El Dorado County Exceeds State Particulate Matter (PM) Standard

## Particulate Matter (PM)

Sources of particulate matter include motor vehicle tires and brakes, wood burning stoves, fireplaces, construction site dust, landfill operations, agriculture operations, brush burning, waste burning, wildfires, industrial sources and windblown dust from open land. In addition to its potential harmful human health effects, PM is often responsible for much of the haze described as smog. Airborne PM is a problem in several of our cities, rural areas, national parks and forests.



PM10 (big) particles can stay in the air for minutes or hours while PM2.5 (small) particles can stay in the air for days or weeks. Because of these residence times, PM10 particles can travel as little as a hundred yards or as much as 30 miles while PM2.5 particles go even farther; many hundreds of miles.

As mentioned in Module 1, PM can have grave health effects, especially PM2.5 as the particles are so small, they can pass through the alveoli and directly into your blood stream. The air and the particles travel into your respiratory system (your lungs and airway). Along the way the particles can stick to the sides of the airway or travel deeper into the lungs. The farther they go, the worse the effect.

Your lungs produce mucous to trap the particles, and tiny hairs wiggle to move the mucous and particles out of the lung. If the particle is small and it gets very far into the lungs, special cells in the lung trap the particles and this can result in lung disease, emphysema, lung cancer.

Both PM10 (big) and PM2.5 (small) particles can cause health problems; specifically respiratory health (that's the lungs and airway). Because the PM2.5 travels deeper into the lungs AND because the PM2.5 is made up of things that are more toxic (like heavy metals and cancer causing organic compounds), PM2.5 can have worse health effects than the bigger PM10.

### Federal and State Standards

The United States Environmental Protection Agency has set national air quality standards for PM10 and PM2.5, based on health research, identifying acceptable levels of ambient particulate matter. Currently, many parts of the western United States violate these standards. The State of California has established generally more stringent ambient (outdoor) air quality standards for PM10 and PM2.5.<sup>1</sup> These standards define the maximum amount of particles that can be present in outdoor air without threatening the public's health. The California Air Resources Board (CARB) adopted an annual average standard for PM10 of 20  $\mu$ g/m<sup>3</sup> (micrograms per cubic meter), and 12  $\mu$ g/m<sup>3</sup> for PM2.5. CARB also adopted a 24-hour standard PM10 of 50  $\mu$ g/m<sup>3</sup>. PM10 levels in most areas of California exceed current state standards from a few to many times each year. El Dorado County is designated as a Non-Attainment Area for the state PM10 standard.<sup>2</sup> The 24-hour PM10 standard was exceeded in El Dorado County in 2003 and 2008.

### Monitoring

California's ambient air monitoring network is one of the most extensive in the world, consisting of over 250 sites where air pollution levels are monitored and more than 700 monitors used to measure pollutant levels to demonstrate *Attainment* or *Nonattainment* of national and state ambient air quality standards.<sup>3</sup> State area designations for ten criteria pollutants: ozone, suspended particulate matter (PM10), fine suspended particulate matter (PM2.5), carbon monoxide, nitrogen dioxide, sulfur dioxide, sulfates, lead, hydrogen sulfide, and visibility reducing particles are updated annually by CARB. El Dorado County monitors are located at; South Lake Tahoe – Sandy Way, Cool – Hwy 193, Echo Summit, and Placerville – Canal St.

### Consequences of Non-attainment

Consequences for a region or air basin not showing progress toward achieving attainment might include; state- or districtimposed limitations such as strict indoor fireplace and wood stove burn bans on poor air quality days, suspending residential open burning for greater periods of time, increased penalties for illegal burning, or the development of stricter rules and regulations. Homes in which wood burning is the primary source of heat are typically exempt from burn bans.

## What is being done to reduce PM10 pollution?

Air quality districts are required to develop programmatic strategies and regulations to achieve needed emission reductions required by state and federal statutes or mandates. Data from the ambient monitoring network are used to indicate the success of the strategies and regulations, in terms of the rate of progress towards *attaining* the standards. Air quality districts have air quality plans to bring PM concentrations down to healthful levels. Plans include:

- 1. Dust control for roads, construction, and landfills.
- 2. Programs to reduce emissions from open burning, wood stoves and fireplaces.
- 3. Cleaner-burning gasoline and diesel fuels.
- 4. Emissions control devices for motor vehicles.
- 5. Controls for industrial facilities.

<sup>&</sup>lt;sup>1</sup> CARB website: <u>https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards</u>

<sup>&</sup>lt;sup>2</sup> CARB website: <u>https://ww2.arb.ca.gov/sites/default/files/2022-12/state\_pm10.pdf</u>

<sup>&</sup>lt;sup>3</sup> CARB website: <u>https://ww2.arb.ca.gov/our-work/programs/ambient-air-monitoring-regulatory</u>

## **Burning Alternatives**



Green waste disposal, composting and chipping are a few of the alternatives to burning available to El Dorado County Residents.

## Green Waste Disposal

Throughout the County, green waste pick-up is available through the disposal companies at low or no cost to residents.

#### **Cities and Community Service Districts**

**El Dorado Hills:** Residents may have 3 carts in addition to their trash cart. The service allows for one recycle cart, one yard waste cart, then an additional cart of either recycle or yard waste, depending on the customer needs, at no additional charge. Any additional carts will be charged an additional cart rate. The <u>El Dorado Disposal recycling</u> <u>center</u> at 4421 Latrobe Road accepts green waste for free from El Dorado Disposal **residential** customers. Service is provided by <u>El Dorado Disposal/Waste Connections</u> (916-985-1162).

**Cameron Park:** Residents may have 3 carts in addition to their trash cart. The service allows for one recycle cart, one yard waste cart, then an additional cart of either recycle or yard waste, depending on the customer needs, at no additional charge. Any additional carts will be charged an additional cart rate. Cameron Park residents may also have two 32 gallon bags of yard waste picked up in addition to their green waste cart. Any bag after that is charged an extra yard waste fee per bag. The Cameron Park Fire Station at 3200 Country Club Drive, accepts green waste for free from El Dorado Disposal **residential** customers. Service is provided by <u>El Dorado Disposal/Waste</u> <u>Connections</u> (530-626-4141).

**Placerville:** Residents may have 3 carts in addition to their trash cart. The service allows for one recycle cart, one yard waste cart, then an additional cart of either recycle or yard waste, depending on the customer needs, at no additional charge. Any additional carts will be charged an additional cart rate. Service is provided by <u>El Dorado</u> <u>Disposal/Waste Connections</u> (530-626-4141).

**City of South Lake Tahoe:** Residents of the City of South Lake Tahoe receive unlimited curbside green waste collection weekly. Green waste is to be placed in bags at the curb on the regular green waste service day. Service is provided by <u>South Tahoe Refuse</u> (530-541-5105).

#### **Unincorporated Areas of El Dorado County**

Residential El Dorado Disposal customers in areas A, B, & C get a one time annual voucher for curbside pick-up of green waste (2.5 cubic yards) and a one time annual voucher for a green waste load (2.5 cubic yards) to be accepted for free at the <u>El Dorado Disposal Material Recovery Facility</u> in Placerville. Vouchers are one time use per year only. Vouchers are mailed out each year.

Additionally, El Dorado Disposal hosts an unlimited green waste specific collection event at a specified drop off location once per year and two unlimited curbside green waste collection events, one in the spring and one in the fall of each year. These events are for El Dorado Disposal **residential customers only**. They will not service curbside bags that do not have addresses on them that identify with a residential account. Contact <u>El Dorado Disposal</u> for event dates as they vary by collection area (530-626-4141).

Service Area specific details are provided below.

El Dorado Disposal Area A (Camino, Cold Springs, El Dorado, Diamond Springs, French Town, Newtown, Pleasant Valley, Pollock Pines, Rescue, Shingle Springs): Residents may have 3 carts in addition to their trash cart. The service allows for one recycle cart, one yard waste cart, then an additional cart of either recycle or yard waste, depending on the customer needs, at no additional charge. Any additional carts will be charged an additional cart rate. See above for unincorporated area green waste collection events and curbside collection information. Service is provided by <u>El Dorado Disposal</u> (530-626-4141). Links to composting resources are provided below.

El Dorado Disposal Area B (Coyoteville, Fair Play, Grizzly Flat, Mount Aukum, Nashville, Omo Ranch, Outingdale, Somerset): Amador Disposal no longer services this area and their customers are now serviced by El Dorado Disposal (530-626-4141). There is no green waste cart service in this area. Residential customers may get up to two recycling carts with trash service. See above for unincorporated area green waste collection events and curbside collection information. Links to composting resources are provided below.

El Dorado Disposal Area C (Coloma, Cool, Garden Valley, Greenwood, Georgetown, Kelsey, Lotus, Mosquito, Pilot Hill, Quintette, Spanish Flat, and Volcanoville): Sierra Disposal is no longer in service and their customers are now serviced by El Dorado Disposal (530-626-4141). There is no green waste cart service in this area. Residential customers may get up to two recycling carts with trash service. See above for unincorporated area green waste collection events and curbside collection information. Links to composting resources are provided below.

**South Tahoe Refuse, South Lake Tahoe Unincorporated El Dorado County:** Residents of the unincorporated area of South Lake Tahoe receive unlimited curbside green waste collection weekly. Green waste is to be placed in bags at the curb on the regular green waste service day. Service is provided by <u>South Tahoe Refuse</u> (530-541-5105). Links to composting resources are provided below.

South Tahoe Refuse Area B (Echo Summit, Fresh Pond, Kyburz, Silver Fork, Strawberry, and Twin Bridges): American River Disposal is no longer the service provider for this area. Customers are now serviced by <u>South Tahoe Refuse</u> (530-541-5105). There is a nominal charge per bin/bag for green waste collection. Links to composting resources are provided below. Residential customers whose tract uses dumpsters can place yard waste in bags next to the dumpster and it is picked up without charge. Links to composting resources are provided below.

**Tahoe Truckee Sierra Disposal (Meeks Bay, Tahoma):** El Dorado County Residents in this area are serviced by <u>Tahoe Truckee Sierra Disposal</u> (530-583-7800). Residents of El Dorado County will be provided 1 green waste coupon twice per spring/summer season which will allow up to 3 yards per coupon (6 yards total) of green waste to be taken to <u>Eastern Regional Landfill</u> (dump/transfer station) for free through October 31st. If material is transported in bags, the bags must be emptied on site by the hauler. Curbside collection is offered for a nominal fee per can.

Please contact Tahoe Truckee Sierra Disposal for information.

**Community Clean-up Days:** In most areas of El Dorado County, the disposal companies are required by contract to provide annual community clean up days. These days are usually held in the Spring and Fall. Check with your disposal company to find out about clean up days in your area.

Disposal Sites: El Dorado Disposal Materials Recovery Facility (MRF): 4100 Throwita Way Diamond Springs, CA 530-626-4141 or 530-642-0731 https://www.eldoradodisposal.com/services/mrf-and-recycling-centers/materials-recovery-facility-or-mrf/

South Tahoe Refuse Transfer Station: 2140 Ruth Avenue South Lake Tahoe (530) 541-5105 http://www.southtahoerefuse.com/

## Composting

Composting is the process of turning organic waste into a rich soil amendment called humus. You can compost green yard waste. Lawn clippings, leaves, hedge clippings and chipped wood all make good additions to a compost bin or pile. Some things that should not be included in compost are meat, dairy products and weed seeds. Guidelines for making an effective compost pile include:

**Food:** A perfect mixture of material consists of ½ brown (carbon-based material) and ½ green (nitrogen-based) materials by weight.

**Air:** The organisms that live inside your compost bin need air to survive. Mix or turn the pile three to five times per season using a pitchfork, garden hoe or shovel. Proper aeration can make a big difference. You will know if your bin is not getting enough oxygen if the pile smells of ammonia.

**Water:** The bacteria organisms need the right amount of water to survive. Moisture level of your compost pile should be like that of a wrung out sponge.

**Surface Area:** Increasing the surface area by cutting or shredding yard waste before placing it into a compost bin will speed up decomposition. You can also store your kitchen scraps (except meat and dairy) in your freezer to speed up decomposition, as materials break down at the cell level when frozen.

**Bin Size:** A bin should be between 3' x 3' x 3' and 5' x 5' x 5'. A bin that is too small cannot retain enough heat. A bin that is too large won't get enough air to the center of the pile. It is also easier to manage two or three medium bins than one large one. You can build a compost bin or you can buy one at a home or garden center.

You can learn more about composting from the following websites:

- El Dorado County Master Gardeners: <u>http://ucanr.edu/sites/EDC\_Master\_Gardeners/files/154200.pdf</u>
- CalRecycle webpage: <u>https://calrecycle.ca.gov/Organics/CompostMulch/</u>
- Environmental Management Home Composting webpage: <u>https://www.edcgov.us/Government/emd/solidwaste/pages/home\_composting.aspx</u>
- El Dorado Disposal' Home Composting web page: <u>https://www.eldoradodisposal.com/services/residential/residential-yard-and-food-waste/</u>

## Chipping

Chipping vegetation is an excellent alternative to burning and the chips can be used in mulch or compost. As mulch, chips provide moisture retention, temperature moderation and weed control. As compost, the chips return nutrients to the soil. Although some pollution will be generated by the chipper, the emissions are far less than if the material had been burned. Free or reduced cost residential chipping is available through various agencies in El Dorado County when funding is available.

**El Dorado County Fire Safe Council:** The <u>El Dorado County Fire Safe Council</u>, (530-647-1700) in partnership with <u>El Dorado Disposal</u>, and <u>South Tahoe Refuse</u> provides a Chipping Program and a Green Waste Dumpster Program along with many other valuable fire fuel reduction resources. Please see the web sites linked below for the details of their programs:

- Chipping Program: <u>https://www.edcfiresafe.org/chipper-program/</u>
- Green Waste Dumpster Program: <u>http://www.edcfiresafe.org/programs-grants-2/green-waste-programs/</u>
- Senior Assistance Program: Vegetation Removal Assistance for Seniors: <u>http://www.edcfiresafe.org/programs-grants-2/free-vegetation-removal-for-seniors-or-disabled-citizens/</u>

Meeks Bay Fire Protection District and Lake Valley Fire Protection District periodically operate chipper programs. They can be reached at: Meeks Bay FPD (530) 525-7548, Lake Valley FPD (530) 577-CHIP (2447).

# MODULE 4 Burning Safety

The following are CalFire and the U.S. Forest Service's tips for burning safely:

- Choose a safe site.
  - A safe site will be far away from power lines, overhanging limbs, buildings, automobiles, and equipment. It will have vertical clearance at least three times the height of the pile, as heat from the fire extends far past the actual flames that you see. It will have horizontal clearance twice the height of the debris pile.
- Clear all flammable material and vegetation within 10-feet of the outer edge of pile. Keep the surrounding area watered down during the burn.
- Keep a water supply close to the burning site.
- An adult should be in attendance with a shovel until the fire is out.
  - Stay with your fire until it is completely out. To ensure the fire has been completely extinguished, drown the fire with water, turn over the ashes with a shovel and drown it again. Repeat several times. Check the burn area regularly over the next several days and up to several weeks following the burn, especially if the weather is warm, dry, and windy.



No burning shall be undertaken unless weather conditions (particularly wind) are such that burning can be considered safe. Weather fluctuations, such as sudden gusts of wind, could make debris burning spark a wildfire. Call your local fire department the day you plan to burn debris to finalize that the weather is safe enough to burn.

### **Burn Conditions**

The following are burning conditions that apply to all burning throughout the County.

### **Burn Permit**

Burn permits from AQMD: are required for piles larger than 4 feet by 4 feet, must be obtained prior to burning, and must be kept at the burn location during the burn. The Air Pollution Control Officer (APCO) may revoke a permit if the permittee is not in compliance with any permit conditions. Burn Permits are good for one burning season and clearly state the expiration date on the permit.

## **Burn** Days

Burning is prohibited on "No Burn" days designated primarily by the California Air Resources Board (ARB), sometimes by the fire agency with jurisdiction, and rarely by the Air Pollution Control Officer (APCO). "No Burn" designations are based on air quality and/or fire danger; both are largely dependent on weather conditions. The ARB makes the determination daily based on the requirements of Title 17 of the California Code of Regulations, Subchapter 2.<sup>1</sup> The APCO may permit burning on "No Burn" days when denial of burning would result in imminent and substantial economic loss. Burning is prohibited during the fire season, typically July 1 until after the first good rain in autumn. To learn if it's a "No Burn" day, permit holders must call the Burn Line West Slope: (530) 621-5897, South Lake Tahoe: (888) 332-2876 immediately prior to burning. All burning, whether or not it requires a Burn Permit, is prohibited on "No Burn" days, except for recreational or cooking fires and in some instances, prescribed burning (i.e., forest management burning by a public agency). Regardless of the burning status, if local weather conditions are not favorable (i.e., it's windy), then DON'T BURN until conditions are favorable.

### Acceptable Material

Dry vegetation, originating on the property, is the ONLY acceptable material. The material must also be free of dirt. Recreational or cooking fires, (which do not require burn permits) may use charcoal briquettes, untreated wood, or cooking fuels. Acceptable ignition devices include liquid petroleum gas, butane, propane, or diesel oil burners, flares, and other fuels that will not create black smoke. If you create a burn pile but don't burn right away, cover the pile with a tarp to protect it from rainwater. Do NOT burn the tarp!

## **Burn Piles**

Burn piles must be located away from structures and other flammable material and as far away from neighbors as possible. The pile must be arranged to burn with as little smoke as possible, typically in a "teepee" shape to ensure a hot and fast burn. Piles must be able to burn completely within one day. Burning must cease if smoke drifts into populated areas, becoming a nuisance. The use of burn barrels to burn anything is prohibited.

<sup>&</sup>lt;sup>1</sup> Title 17, Subchapter 2 of the California Code of Regulations. <u>https://ww2.arb.ca.gov/sites/default/files/2021-06/Title17.pdf</u>

### **Other Burn Requirements**

## Local Fire Agency and CalFIRE Permits

The fire agencies within the County require burn permits for residential outdoor burning. Residents wishing to burn piles larger than 4' x 4' must also obtain an AQMD permit. Some fire agencies have their own permits, while others use CalFIRE's statewide residential burn permit. CalFIRE has two types of open burning permits: a residential burn permit for piles less than 4 feet by 4 feet (Form LE-62A, also known as "Dooryard" burn permits), and a burn permit for piles larger than 4 feet by 4 feet (Form LE-5). CalFIRE permits are required from May 1st until the CalFIRE Director declares that hazardous fire conditions have abated for the year. It's a good idea to notify your fire agency just prior to burning. Several agencies have slightly different requirements as noted on the next page.

## Additional Fire Agency and Community Services District Specific Requirements

#### Cameron Park Fire District and Community Services District (CSD)

Residents of Cameron Park living on parcels of less than one acre may only burn during the first two weeks of April and the first two weeks of November. Residents on parcels greater than one acre may burn on any burn day.

#### El Dorado Hills Fire District and CSD

El Dorado Hills residents may only burn vegetation when there is no wind and for no more than 24 hours continuously. Residents may not burn stumps or poison oak.

#### **El Dorado County Fire District**

El Dorado County Fire District residents may only burn when there is no wind.

#### **Georgetown Fire District**

Georgetown Fire District residents may only burn when there is no wind.

#### Lake Valley Fire District

Lake Valley Fire District residents may only burn when winds are less than 5 mile per hour and between the hours of 8 a.m. and 3 p.m.

#### **Meeks Bay Fire District**

Meeks Bay Fire District residents may only burn when winds are less than 5 mile per hour and between the hours of 8 a.m. and 3 p.m. All sites must be inspected by Fire District staff prior to burning.

#### City of South Lake Tahoe

Residential outdoor burning is prohibited in the City of South Lake Tahoe.

## El Dorado County Fire Protection Providers Map

If you're unsure of which fire district you reside in, you can view a map of all districts in the County at:

https://www.eldoradocountyfire.com/about-us

https://www.eldoradocountyfire.com/files/5288b561b/fire+districts+map.pdf

## Fire Agency Contact Information

Fire Agency	Address	Phone Number	Website:
CalFIRE	2840 Mt. Danaher Rd, Camino, CA 95709	(530) 644-2345	https://www.fire.ca.gov/
Cameron Park	3200 Country Club Drive Cameron Park, CA 95682	(530) 677-6192	https://www.cameronpark.org/
Diamond Springs – El Dorado	501 Main Street, Diamond Springs, CA 95619	(530) 626-3190	https://www.diamondfire.org/
El Dorado County	4040 Carson Road Camino, CA 95709	(530) 644-9630	https://www.eldoradocountyfire.com/
El Dorado Hills	1050 Wilson Boulevard, El Dorado Hills, CA 9576	(916) 933-6623	https://www.edhfire.com/
Garden Valley	4860 Marshall Rd., Garden Valley, CA 95633	(530) 333-1240	https://www.gardenvalley.org/
Georgetown	6283 Main Street Georgetown, CA 95634	(530) 333-4111	https://www.geofire.org/
Lake Valley	2211 Keetak Street South Lake Tahoe, CA. 96150	(530) 577-3737	https://lakevalleyfire.org/
Latrobe	7660 S Shingle Rd, Shingle Springs, CA 95682	(530) 677-6366	None
Meeks Bay	8041 Emerald Bay Road, Meeks Bay, CA	(530) 525-7548	https://www.meeksbayfire.com/
Mosquito	8801 Rock Creek Road Placerville, CA 95667	(530) 626-9017	https://mfpd.us/
Pioneer	7061 Mt. Aukum Road Somerset, CA 95684	(530) 620-4444	https://pioneerfire.org/
Rescue	5221 Deer Valley Rd, Rescue, CA 95672	(530) 677-1868	https://www.rescuefiredepartment.org/
City of South Lake Tahoe	2101 Lake Tahoe Blvd. South Lake Tahoe, CA 96150	(530) 542-6160	https://www.cityofslt.us/384/Fire
City of Placerville	See El Dorado County above	https://www.cityofplacerville.org/ElDoradoCountyFireDepartment	

## **Forest Management Burning**

Forest management burning, also known as controlled, prescribed or hazard reduction burning, is a technique sometimes used in forest management, farming, prairie restoration or weed abatement. Fire is a natural part of both forest and grassland ecology and prescribed fire can be a great tool for foresters. Benefits of forest management burning include:

- Reduction in hazardous fuels, protecting human communities from extreme fires
- Minimizes the spread of pest insects and disease
- Removes unwanted species that threaten species native to an ecosystem
- Provides forage for game
- Improves habitat for threatened and endangered species
- Recycles nutrients back to the soil
- Promotes the growth of trees, wildflowers, and other plants

There are a few different types of forest management burning. Broadcast burning is the burning of scattered slash over a wide area, pile burning is the gathering up of the slash into piles before burning and creepy pile burning is letting gathered up slash piles burn and slowly creep through the forest burning years of built up leaf litter on the forest floor. Pile burning tends to have high temperatures which can harm soil, damaging it physically, chemically or sterilizing it. However, steps can be taken to restore soil after a pile burn. Broadcast burning tends to have lower temperatures and does not harm the soil as much as pile burning.



Specialists write burn plans and Smoke Management Plans for prescribed fires. Burn plans identify – or prescribe – the best conditions under which trees and other plants will burn to get the best results safely. Burn plans consider temperature, humidity, wind, moisture of the vegetation, and conditions for the dispersal of smoke. Prescribed fire specialists compare conditions on the ground to those outlined in burn plans before deciding whether to burn on a given day. The overall goal of a Smoke Management Plan is to protect public health by reducing smoke impacts in populated areas while protecting the vitality of California forests, other wild lands and farmland. California's Smoke Management Program is designed to coordinate agricultural and prescribed burning among air districts, federal, state and local agencies, and private parties.

## **Woodstove Replacement Incentive**

On July 17, 2007, the Board of Directors of the El Dorado County Air Quality Management District (AQMD) approved a Chimney Smoke Reduction Incentive Program (RIP) to encourage homeowners to permanently remove or replace non-EPA certified wood stoves and inserts (manufactured before 7/1/88), and fireplaces<sup>1</sup> with cleaner burning EPA Phase II certified devices. This will improve winter air quality through reduction of particulate matter (PM) emissions caused by inefficient residential wood combustion. On February 3, 2015, the US EPA strengthened these standards to be phased in over the next few years<sup>2</sup>

Applying for the RIP is easy but available on a first come, first served basis. RIP is a tiered program that will pay \$500 for removal of a non-EPA certified unit and replacement with a certified wood-burning device, or \$600 for complete removal, or replacement with an electric, propane, or natural gas heating unit. AQMD will continue this program until the funds are depleted. Preapproval by AQMD for eligibility is required prior to the old unit being removed. RIP will also cover the cost of the basic Building Permit to install the new device (approximately \$100). Applicants will receive reimbursement checks in the mail after all required claim materials have been submitted. When funds are depleted, a notice will be provided on the AQMD website.

The US EPA states the energy efficiency benefits of replacing old wood stoves and fireplaces<sup>3</sup> are:

- Saves money, fuel, time and resources.
- Up to 50% more energy efficient.
- Uses 1/3 less wood for the same heat.
- Cuts creosote build-up in chimneys that helps reduce the risk of fire.
- Produces 70% less particle pollution indoors and out.



Environmental benefits include:

- Reduces indoor and outdoor wood smoke pollution which has been linked to cancer, asthma and other serious health conditions. See <u>health effects of wood smoke</u> for more information.
- Improved combustion efficiency reduces CO2, methane and black carbon emissions.
- Saves billions in health benefits each year.

Funding is intended only for primary El Dorado County residence remodels and retrofits. The woodstove or fireplace removed must be a non-EPA certified unit to qualify. Newly constructed homes (homes less than one year old) are not eligible. After being pre-approved and completing the changeout, the following information must be provided for reimbursement:

- After photo of newly installed unit.
- Item-specific receipt for destruction of the old unit from a licensed metal recycler or other satisfactory evidence of destruction of the old unit (i.e., photo showing the stove has been cut, crushed or a receipt proving the steel has been recycled)
- Copy of a new EPA certified woodstove purchase receipt
- Final Inspection Report signed off by the Building Department for the newly installed unit.



<sup>&</sup>lt;sup>1</sup> Open-faced fireplaces are eligible if they are the ONLY source of heat in the home. Fireplaces with closable glass doors or metal doors are eligible.

<sup>&</sup>lt;sup>2</sup> <u>https://www.epa.gov/residential-wood-heaters/compliance-requirements-residential-wood-heaters</u>

<sup>&</sup>lt;sup>3</sup> <u>https://www.epa.gov/burnwise/energy-efficiency-and-your-wood-burning-appliance</u>