**Content Sample 1**

**Engineering**

**About Engineering and Permits**

The Air District's Engineering Division issues and annually renews air quality permits for equipment that emits air pollutants in Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara and the southern portions of Solano and Sonoma counties.

**What is a permit?**

An air quality permit is a document that states the requirements for equipment to comply with air pollution laws and regulations. Air quality permits, like city and county building permits, are required by state and federal law and are required for any entity that may emit air pollution to ensure healthy air for Bay Area residents. These permits are issued by the Air District.

The Air District issues and reviews federal Title V Major Facility and Synthetic Minor operating permits.

In addition, the Air District reviews New Source Review (NSR) permits, which are needed for:

Any equipment that may emit air pollution

* Modifications of existing permitted equipment
* Existing permitted equipment at a facility with a new owner
* Permitted equipment that is transferred from one location to another
* Installation of abatement equipment used to control emissions

The NSR permit system requires an engineering review of the equipment design and may require an inspection of the installed equipment to ensure compliance with Air District regulations. Two types of NSR permits may be required:

* An Authority to Construct, issued after Air District engineers review a proposed project and determine if it is capable of complying with air quality laws; and
* A Permit to Operate, issued after the project is built and compliance is demonstrated.

Both the Authority to Construct and the Permit to Operate are issued under the same permit application. By granting a permit, the Air District indicates that permitted equipment should be able to comply with all air quality rules and regulations.

**Who needs a permit?**

Any person, business, or agency that puts in place, builds, erects, installs, modifies, modernizes, alters or replaces any equipment or anything that may cause, reduce or control the emission of air pollution.

Typical large businesses that need permits include bulk petroleum operations, chemical plants, refineries and power plants.  Typical small businesses include dry cleaners, gasoline service stations, auto body shops, coating operations and printers.

**Permits Ombudsman**

The Air District has a Permits Ombudsman who acts as a liaison with regulated businesses, trade associations, other regulatory agencies, environmental organizations and community members in order to promote and direct permit and compliance assistance activities. The Permits Ombudsman works with businesses and community groups in resolving issues related to permit/compliance assistance and regulatory requirements. For assistance in these matters, contact the Permit Ombudsman, Joe Slamovich, at (415) 749-4681.

**New Permit Applications Received**

The Air District posts information on new permit applications on a weekly basis. A full listing is available on the [New Permit Applications webpage](http://www.baaqmd.gov/Divisions/Engineering/Authority-to-Construct-Permit-to-Operate/New-Permit-Applications-Received.aspx).

The Permit Ombudsman is Joe Slamovich and can be reached at (415) 749-4681 or JSlamovich@baaqmd.gov.

**Content Sample 2**

**Planning Healthy Places**

**Smart Growth and Air Quality**

**The Land Use, Transportation, and Air Quality Connection**

Motor vehicles are the major source of air pollution in the Bay Area. The amount we drive (expressed by transportation planners as vehicle miles of travel or VMT) is a function of the number of vehicle trips we make and the distance of those trips. Well-integrated land use and transportation planning can decrease VMT and motor vehicle emissions by helping to reduce the number of motor vehicle trips and the average length of vehicle trips.

The way we build our communities strongly influences how we travel from home to work, to school, to shops and services, and to other destinations. If the location, mix, density, and design of development support transit, walking and cycling, then Bay Area residents will have more choices in how to travel. Reducing dependence on automobiles and encouraging walking, biking, and transit use can result in less driving and less pollution from automobiles. Air quality will benefit if we build our communities in ways that encourage alternatives to the automobile.  And the public will experience better health, thanks to increased physical activity and cleaner air.

Local governments make the land-use decisions that would allow for a mix of uses, greater densities and infill development near transit centers and other optimal locations.  These developments, in turn, need supporting long-term transportation investments, such as regional transit and capital funds for bike lanes, sidewalks and other pedestrian amenities.  The accessibility of jobs, housing and services and the viable transportation options for getting to and from those places directly affect driving and tailpipe-related emissions.  For example, when jobs, homes, and services are accessible by multiple options, and not just driving, such as sidewalks, bike paths, and train routes, people can choose to drive, walk, bike, or take the train. This is the land use, transportation, air quality connection.

Development patterns can support transit, walking and bicycling in many ways:

* Focusing higher density development near transit stations and corridors
* Encouraging compact development with a mix of uses that locates housing near jobs, shops and services, schools and other community facilities
* Locating shops and services near employment centers
* Encouraging infill development of underutilized land
* Designing streets, sidewalks and bicycle routes to ensure safe and convenient access for pedestrians and bicyclists
* Designing individual development projects to provide safe, convenient pedestrian and bicycle access to transit stops and nearby services

**Smart Growth Benefits**

Smart growth land use planning creates many benefits for a community:

* Reduces air pollution and greenhouse gases
* Preserves open space and agricultural lands
* Provides more housing for all income levels
* Reduces congestion and long distance commuting (less vehicle miles of travel)
* Reduces water pollution from urban runoff
* Reduces energy consumption
* Reduces emissions of greenhouse gases that contribute to global warming
* Creates vibrant and livable communities
* Improves health through increased physical activity

**Realizing Air Quality Benefits**

To support and better understand the benefits of smart growth land use planning to air quality, the District contracted with Fehr & Peers, Transportation Consultants to develop an excel-based tool that quantifies VMT (vehicle miles traveled) reductions from transportation demand measures (TDM).  The resulting reductions in VMT can then be translated into reductions in air pollution and greenhouse gas emissions.  The tool provides reliable quantification of TDMs that can be used in CEQA analysis for projects and inform smart growth planning strategies related to density, transit accessibility, transit service, and parking policies.  In total, 25 individual TDM measures across five categories are included:

* Land Use and Project Location
* Neighborhood Enhancements
* Parking Policies and Pricing
* Transit System Improvements
* Commute Trip Reduction Programs

The tool is designed to quantify VMT reductions from measures that are implemented at a project-level.  All necessary calculations are fully automated by inputting project details.  Separate tabs provide individual measure formulas, input requirements, assumptions, and variables that are used to calculate VMT reductions.  The user is able to select individual measures as well as multifaceted TDM programs which can be evaluated simultaneously.

The tool and its user's guide can be downloaded below.  For more information about the tool or questions please contact Ian Peterson, Environmental Planner at ipeterson@baaqmd.gov or (415) 749-4783.

[BAAQMD Transportation Demand Management Tool](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Smart%20Growth/BAAQMD%20TDM%20Tool%20-%2006042012.ashx)

[BAAQMD Transportation Demand Management Tool - User's Guide](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Smart%20Growth/BAAQMD%20TDM%20Tool%20Users%20Guide.ashx)

**Regional Efforts**

Linking air quality and land use planning enables regional and local planners to meet several essential, and sometimes perceived as conflicting, policy objectives: regional sustainability, local infill development and public health protection.

The [2010 Clean Air Plan](http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx) (2010 CAP) is the Air District’s most recent ozone plan for reducing emissions in the region. Many of the control measures, particularly in the areas of transportation and land-use, incorporate smart growth principles.  See [Volume II](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Plans/2010%20Clean%20Air%20Plan/CAP%20Volume%20II_Sections%20A-F.ashx) of the 2010 CAP for additional information.

In 2008, [Senate Bill 375](http://www.arb.ca.gov/cc/sb375/sb375.htm) (SB 375) was enacted, which requires that the Bay Area’s Regional Transportation Plan (RTP) contain a Sustainable Communities Strategy (SCS) integrating land-use and transportation planning.  The purpose of SB 375 is to coordinate land-use patterns with transportation networks to reduce per capita greenhouse-gas (GHG) emissions from motor vehicles.  The SCS, also known as [Plan Bay Area](http://onebayarea.org/plan_bay_area/), will promote compact, mixed-used commercial and residential development that is walkable, bikable, and close to mass transit, jobs, schools, shopping, parks, recreation and other amenities.  If successful, Plan Bay Area will provide people with more transportation choices aside from the personal motor vehicle, create more livable and healthy communities, and reduce the air pollution which contributes to climate change.    While SB 375 seeks to reduce per-capita GHG emissions, the outcome of Plan Bay Area will include numerous other public health, community and environmental co-benefits such as: reduced air and water pollution, congestion and energy consumption; conservation of open space and agricultural lands; additional transportation options and access to community amenities; and improved public health through increased physical activity (such as walking/biking) and from cleaner air and water.

Plan Bay Area is being carried out as a joint effort by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) in partnership with the Air District, the Bay Conservation and Development Commission (BCDC), and the nine counties and 101 cities and towns in the Bay Area.

MTC’s [Transportation 2035 Regional Transportation Plan](http://www.mtc.ca.gov/planning/2035_plan/) specifies how federal, state and local transportation funds will be spent throughout the Bay Area during the next 25 years.  Transportation 2035 seeks to provide for a healthy and safe environment, and promote equitable transportation options for all residents.  The plan includes a number of programs to achieve these goals as well as to promote compact, smart growth and development, including: creation of a Regional Express Lane Network; a Freeway Performance Initiative to improve the efficiency, reliability and safety of major Bay Area freeways; and the implementation of major transit projects including a BART extension, electrification of CalTrain and the SMART rail in Marin and Sonoma counties.

[New Places, New Choices: Transit-Oriented Development in the San Francisco Bay Area](http://www.mtc.ca.gov/planning/smart_growth/tod/TOD_Book.pdf) illustrates ten outstanding examples of recent transit-oriented development in the Bay Area.

ABAG’s [FOCUS](http://www.bayareavision.org/initiatives/index.html) is a regional planning initiative that promotes a more compact land use pattern for the Bay Area by identifing Priority Development Areas (PDAs) – infill development opportunity areas in existing communities – and directs financial assistance and planning resources to these areas.  There are over 100 identified PDA’s in the Bay Area.

The [San Francisco Bay Conservation and Development Commission](http://www.bcdc.ca.gov/) (BCDC) is helping the region understand and consider adaptation planning for climate change.

**Smart Growth Resources**

Comment letters submitted by District staff on various smart growth policies and strategies at the local, state and federal level:

* [U.S. EPA, "Creating Equitable, Healthy and Sustainable Communities: Strategies for Advancing Smart Growth, Environmental Justice, and Equitable Development" (draft)](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Smart%20Growth/EPA%20Environmental%20Justice%20and%20Equitable%20Development%20Draft%20Report_BAAQMD%20Comments.ashx) - comments on the EPA's draft environmental justice and equitable development report which is intended to promote the integration of smart growth and environmental justice to achieve healthy, sustainable and equitable communities.
* [Governor's Office of Planning and Research, Senate Bill 226](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Smart%20Growth/BAAQMD%20SB226%20letter%20final.ashx) - comments on the OPR's proposed additions to the CEQA Guidelines to implement SB 226, which is intended to support infill projects by establishing environmental performance standards to streamline CEQA review for eligible infill projects.

Grants: The Air District's [Transportation Fund for Clean Air](http://www.baaqmd.gov/Divisions/Strategic-Incentives/Funding-Sources/TFCA/Regional-Fund.aspx) (TFCA) ; MTC's [Smart Growth/Transportation for Livable Communities/Housing Incentive Program](http://www.mtc.ca.gov/planning/smart_growth/index.htm); [U.S. EPA Smart Growth Grants](http://www.epa.gov/livablecommunities/grants/)

**Content Sample 3**

### Off Road Vehicles

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a state funded program that offers grants to owners of heavy-duty vehicles and equipment in order to reduce air pollution emissions from heavy-duty engines.

**Air District will start accepting project applications for the Carl Moyer Program Year 16 funding cycle on July 14, 2014.**

###### What types of off-road diesel projects are eligible for grants?

Grants are available to help off-road diesel engine owners to: 1) install verified diesel emission control systems (VDECS) on existing engines, 2) replace older engines with newer and emission-certified engines in existing equipment (with VDECS, where possible), and 3) replace an entire piece of old equipment with newer equipment with a cleanest available engine (with VDECS, where possible).

###### Who can apply?

Owners of off-road equipment that 1) is at least 3 years from regulation compliance (small fleets for construction/industrial) OR 2) is exempt from regulation (diesel agricultural) are eligible to apply. Equipment must have a motive engine of at least 25 hp. Common equipment to off-road funding includes loaders, tractors, dozers, excavators, scrapers and forklifts. Older and higher usage (as recorded by an hour meter or other reliable records) equipment are more likely to yield a cost-effective and fundable project. Funding opportunities are very unlikely for equipment that has fewer than 3 years until a first compliance date or is already under regulation (such off-road medium and large fleets, large-spark ignition equipment and cargo handling equipment) unless the equipment owner can demonstrate emission reductions that are **surplus** to any regulatory requirement.

All vehicles and equipment funded with a grant must operate within the Air District’s boundaries. The Air District is accepting applications for projects throughout its jurisdiction, but will prioritize projects that reduce emissions in the following nine impacted communities::

1. Concord
2. Richmond/San Pablo
3. Western Alameda County
4. San Jose
5. Livermore
6. Eastern San Francisco
7. San Rafael
8. Vallejo
9. Antioch/ Pittsburg

See [Priority Community Map](http://www.baaqmd.gov/~/media/Files/Strategic%20Incentives/Carl%20Moyer/Grant%20Communities%202014%20v4.ashx) for highly impacted communities in the Bay Area. The following counties are part of the Air District’s jurisdiction: Alameda, Contra Costa, Marin, San Mateo, San Francisco, Santa Clara, and Napa counties. The southern portions of Solano and Sonoma counties are also part of the Air District.

###### How do I find out more about what regulation my equipment is subject to and what my first compliance date is?

If you are unsure what regulation your equipment falls under and therefore cannot determine whether or not you are eligible to apply for grant funding, please call the ARB regulatory hotline at 866-6-DIESEL or visit the following ARB webpages:

* [Off-Road Diesel Vehicle Rule](http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm) (includes diesel airport equipment)
* [Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards](http://www.arb.ca.gov/ports/cargo/cargo.htm) (includes equipment such as yard trucks, hostlers, cranes, top handlers, side handlers, forklifts, and loaders)
* [Off-Road Large Spark-Ignition (LSI) Gasoline and LPG Equipment Rule](http://www.arb.ca.gov/msprog/offroad/orspark/orspark.htm). Includes forklifts, specialty vehicles, airport service equipment, large turf care equipment, portable generators, and a wide array of other agricultural, construction, and general industrial equipment powered by gasoline, liquefied petroleum gas (LPG), and other alternate fuels.

###### What other information should I know about the grants for off-road engines?

* The application requires that you submit information about your existing engine and equipment (model year, serial number, engine tier, usage documentation) and information about the replacement engine or equipment (quotes from your engine dealer for prices, engine tier, and engine executive order).
* The equipment replacement project type (ERP) requires that grantees work with a District-approved dealership that has been trained to participate in ERP. The list of approved dealers can be found on the [Off-Road Equipment Replacement Program (ERP)](http://www.baaqmd.gov/Divisions/Strategic-Incentives/Off-Road-Vehicles/Off-Road-Equipment-Replacement-Program.aspx) webpage.
* Funding is provided first-come, first-serve until the funds are depleted, based on a complete application (not just a submitted application) starting July 23, 2013.

###### What can I do now, before I start my application?

* Understand any applicable state fleet rules that may apply to your fleet.
Assess your fleet to determine which equipment might be good candidates for which project type (retrofit filter only, engine replacement or equipment replacement).
* Contact your engine or equipment dealer to discuss possible projects for your equipment.
* Review the applicable application and start collecting required information and documentation.
* Contact the Air District with any additional questions; Judy Williams at 415-749-4738.

**Content Sample 4**

### Wood Smoke

#### New Wood Burning Regulation 6, Rule 3: Wood-Burning Devices

On July 9, 2008, the Bay Area Air Quality Management District Board adopted Regulation 6, Rule 3: Wood-burning Devices to reduce the harmful emissions that come from wood smoke. The new rule will:

* Restrict wood burning when air quality is unhealthy and a Spare the Air Advisory is issued
* Place limits on excessive smoke (exceding 20 percent opacity)
* Require only cleaner burning EPA certified stoves and inserts be sold
* Require only cleaner burning EPA certified stoves and inserts in new construction or remodels
* Prohibit the burning of garbage and other harmful materials
* Require labeling on firewood and solid fuels sold within the Bay Area

View a full copy of the new [Regulation 6, Rule 3](http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Rules%20and%20Regs/reg%2006/rg0603.ashx): Wood-burning Devices

#### Woodsmoke Pollution and Health Effects

To learn more about the wood smoke pollution and the associated health effects, please visit these sites

##### Health Effects Basics

* [EPA Health Effects Information](http://www.epa.gov/woodstoves/healtheffects.html)
* [Washington State Health Effects of Woodsmoke](http://www.ecy.wa.gov/pubs/92046.pdf)

##### Research on Health Effects

* [California Air Resources Board PM Mortality Research](http://www.arb.ca.gov/research/health/pm-mort/pm-mortdraft.pdf)
* [Pyramid of Health Effects and Pertinent Health Studies](http://www.baaqmd.gov/pln/ruledev/6-3/0603_stfrptx2_060408.pdf)

##### Woodsmoke Basics

* [EPA Woodstoves Basics](http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/e3175e041784cf6485257c550059ca4c%21opendocument)

##### Can I burn?

* Check before you burn
* Call 1-877-4NO-BURN
* [www.sparetheair.org](http://www.sparetheair.org/)
* [Sign up for e-mail air alerts](http://airalert.sparetheair.org/)
* Check local radio, TV or newspapers

The San Francisco Bay Area is home to almost seven million residents and an estimated 1.2 million fireplaces and wood stoves. Wood smoke air pollution from these devices can be a significant air pollution and public health problem during the winter.

#### Wood Smoke is 80 - 90% Fine Particulate matter

Wood smoke air pollution comes from the burning of wood both indoors (fireplaces, woodstove and other wood burning devices) and outdoors recreational firepits, Wood smoke contains approximately 80 -90 % fine particulate matter (PM 2.5) measuring 2.5 microns in size (one millionth of a meter or 1/70th of a human hair).



#### Fine Particulate Matter (PM2.5) Associated with Serious Health Effects

Fine particles can easily bypass the natural filters in the nose and throat and penetrate deep into the lungs. Health studies have linked long-term exposure to PM with serious health effects such as

People with heart or lung disease such as congestive heart failure, angina, chronic obstructive pulmonary diseases, emphysema or asthma may experience health effects earlier and at lower levels than healthy people. Older adults are more likely to be affected because they are more likely to have chronic heart or lung diseases than younger people. Children are most susceptible because their respiratory systems are still developing, they breathe more air (and air pollution) per pound of body weight than adults and they are more likely to be playing outdoors.



#### Highest Fine Particulate Matter Air Pollution Occurs During the Winter

During the months of November through February, cold weather inversions can put a "lid" over the Bay Area allowing fine particulate matter levels to rise and cause serious health problems. Chemical analysis of filters from air monitoring instruments indicate that winter-time woodsmoke is a significant source of fine particulate matter on cold winter days. The picture below shows a comparison of a filter cartridge from an air monitoring station on a good air quality day (on the left) with a filter cartridge on a cold winter day with high PM levels (on the right).



#### Why a Wood Smoke Regulation?

In order to protect public health, the U.S. Environmental Protection Agency lowered the air quality standard for fine PM to 35 micrograms per cubic meter. The Air District is required to establish regulations to meet the EPA standard and reduce fine PM in order to protect public health. Residential woodburning represents the largest primary source of PM 2.5 during winter months, contributing approximately 33% of fine PM on cold winter days. Similar rules have been successfully implemented in other areas throughout California and the nation resulting in significant improvements to air quality.

#### What you can do to help?

Wood smoke is the biggest source of air pollution that individuals have the greatest power to control. Here are 10 things you can do to reduce wood smoke pollution:

To learn more about wood smoke pollution and what you can do, please visit these websites:

* Decreased lung function
* Aggravated asthma
* Nose and throat irritation
* Chronic bronchitis
* Lung damage
* Irregular heart beat
* Even premature death in people with lung and heart disease
* Give your fireplace or wood stove the night off.
* Replace your fireplace or wood stove with a clean burning natural gas device.
* Insulate your house to keep warmth in.
* Save energy and reduce pollution by wearing a sweater on chilly nights.
* Switch to an EPA-certified wood burning device or pellet stove, which emit up to 70% less PM.
* Burn clean, hotter fires with plenty of air, in order to prevent visible smoke from a chimney or flue; smoke which indicates poor combustion so adjust dampers or fuel accordingly.
* Never burn, painted wood, treated wood, particle board, plastics, wrapping paper or other garbage; burning them releases toxic chemicals.
* Burn only dry hardwood fuel such as oak or cherry, which produces less smoke and burns hotter; never burn wet wood.
* Store wood in a dry or covered area, off the ground to keep it from getting wet.
* Keep your fireplace and stove well maintained to improve air flow and reduce emissions.

##### To Learn More about wood smoke pollution and what you can do, please visit these websites:

###### Health Effects

* [www.epa.gov/woodstoves/healtheffects.html](http://www.epa.gov/woodstoves/healtheffects.html)

###### Spare the Air Tonight Advisories

* [www.sparetheair.org](http://www.sparetheair.org/)

###### Rebates and Incentives

* <http://www.sparetheair.org/community/changeoutprogram.htm>

###### Wood Smoke Basics

* [www.epa.gov/woodstoves/index.html](http://www.epa.gov/woodstoves/index.html)

[View an Advisory](http://www.baaqmd.gov/~/media/Files/Compliance%20and%20Enforcement/Wood%20Burning/planning_letter_9-22-08.ashx) dated September 22, 2008, that was mailed to all Bay Area Planning and Building Departments alerting them to the Regulation 6, Rule 3 requirement that building permits shall not be issued to new construction or remodels with a conventional fireplace after January 1, 2009.