

**SACRAMENTO METROPOLITAN AIR QUALITY  
MANAGEMENT DISTRICT**

For Agenda of **July 24, 2008**

**To:** Board of Directors  
Sacramento Metropolitan Air Quality Management District

**From:** Larry Greene  
Air Pollution Control Officer

**Subject: Adopt a Resolution Approving the Proposed Changes to Wood  
Stove/Fireplace Change Out Incentive Program and Authorizing FY08/09  
Funding**

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**Recommendation**

Staff recommends the Board:

1. Determine that the proposed changes to the Wood Stove/Fireplace Change Out Program are exempt from the California Environmental Quality Act (CEQA);
  2. Approve the recommended changes to the incentive funding levels;
  3. Direct Staff to analyze the feasibility of developing an incentive to remove wood burning devices without replacement;
  4. If Staff's analysis determines that it is feasible to remove devices without replacement, authorize the Air Pollution Control Officer to establish an incentive for removing wood burning devices without replacement not to exceed \$150; and
  5. Authorize the use of additional Solutions for the Environment and Economic Development (SEED) funds collected during Fiscal Year 08/09 for wood incentives bring the total fund allocated to the Wood Stove/Fireplace Change Out Program to \$2,302,003.
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**Executive Summary**

On June 22, 2006, the District's Board approved Staff's recommendation to implement a residential Wood Stove/Fireplace Change out Incentive Program (program) for the replacement or retrofit of uncertified and highly-polluting residential wood burning appliances (e.g., wood stoves and wood fireplaces, fireplace inserts) with certified low-emitting devices. The program has two components. The first component is a voucher program to give monetary incentives for the replacement of old wood burning appliances with cleaner appliances. The second component is a low income assistance program that will fully fund the replacement of existing dirty wood burning appliances for qualified applicants. The Board's approval included a requirement for the Air Pollution Control Officer to provide the Board with annual updates on the program.

In January 2007, staff reported back to the Board on the pilot voucher program that ran August 15, 2006 – September 30, 2006. During that report back, Staff recommended changes in the outreach and the incentive levels provided for environmental justice areas and gas log inserts. The Board approved the recommended changes and the second phase of the voucher program ran from February 1, 2007 – May 31, 2007. The third phase of the voucher program ran from September 1, 2007 - March 31, 2008 with equipment to be installed by June 30, 2008.

## Board Memo

### Adopt a Resolution Approving the Proposed Changes to Wood Stove/Fireplace Change Out Incentive Program

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In May 2007, the Board a low income assistance program through a partnership with the Community Resource Project Incorporated (CRP), a non-profit agency serving the needs of low income residents in Sacramento County. The contract to begin implementing this program was signed on November 1, 2007. CRP has submitted an initial work plan that has identified approximately 175 potential residents for change out over the next year.

In October 2007, the Board approved new Rule 421, Mandatory Episodic Curtailment of Wood and Other Solid Fuel Burning. Two issues were identified in the rule development process: 1) consistency of the incentive program and Rule 421; and 2) frequency of certified stove usage.

Staff is recommending the following changes to the incentive program to further reduce particulate matter emissions through the incentive program and make progress to attain federal health standards.

- Increase the incentive for replacing uncertified wood stoves/inserts or open hearth fireplaces with a gas device
- Add an incentive for replacing a wood burning certified device or a pellet device with a gas burning device
- Continue funding certified wood and pellet devices, but limit to replacement of an existing uncertified wood stove/insert and lower the incentive amount
- Add an incentive for replacing a certified or uncertified wood burning device or a pellet device with an electric device
- Analyze the feasibility of incentives for removal of wood burning devices without replacement and, if feasible, add an incentive not to exceed \$150

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### **Overview of the Woodstove/Fireplace Change Out Program Funding**

When the Board approved the Wood Stove/Fireplace Change out Program in June 2006, it allocated funding from a combination of unspent SEED funds and CEQA mitigation fees. Awards of SEED funding are normally done through a Request for Proposal (RFP) process. Rule 205, Section 318.5 provides for an alternative process for dispersing SEED funding if the Board determines that there is a need to fund certain pollution reducing programs. At the April 2006 Board meeting, the Board determined there was a need to fund the Wood Stove/Fireplace Change Out Program, and allocated the unspent SEED funds to this program. At the May 2007 meeting, the Board approved the continued use of SEED funds for this program and added the SEED funds collected during Fiscal Year 06/07 and 07/08. Staff is requesting authorization to continue to use SEED funds for the voucher and/or low income programs by adding this program the SEED funds to be collected during Fiscal year 08/09. The funds to be collected are estimated to be \$75,871.

At the May 2007 meeting the Board also approved adding an additional \$300,000 from CEQA mitigation fees in Fiscal Year 07/08 and 08/09 if the funds are available and approved during the budget process.

The table below summarizes the total funding allocated to this program:

<b>Total Funding Allocated to Wood Stove/Fireplace Change Out Programs</b>				
	<b>Voucher Program</b>		<b>Low Income Assistance Program</b>	
	<b>SEED Fees</b>	<b>Mitigation Fees</b>	<b>SEED Fees</b>	<b>Mitigation Fees</b>
Program Approval	\$446,420	\$456,716	\$296,580	\$303,420
Added FY 06/07	\$59,944			
Added FY 07/08	\$63,052			\$300,000
Added FY 08/09	\$75,871			\$300,000
Total by Program and Fee type	\$645,287	\$456,716	\$296,580	\$903,420
Total by Program	\$1,102,003		\$1,200,000	
Total Allocated	\$2,302,003			

### Overview of the Voucher Program

The voucher program currently provides a cash incentive for Sacramento County residents to replace uncertified wood stoves and fireplaces. Additional discounts are also being provided by most of the participating hearth products vendors and retailers. A resident applies for a voucher by filling out an application and submitting the application with a copy of a utility bill to District staff. To qualify for the voucher program, the home must be located within the Sacramento County boundaries and must have an open wood burning fireplace or an uncertified wood stove/insert. Staff evaluates the application and issues a voucher with a list of participating retailers to the resident who can then redeem the voucher when making a purchase at a participating retailer. The voucher value is discounted at the time of purchase. The participating retailer submits the voucher for re-imbusement after work has been completed and all the documentation is submitted. The program currently provides the following incentives:

<b>Device Type</b>	<b>Incentive Amount Area</b>	
	<b>Environmental Justice</b>	<b>Non-Environmental Justice</b>
Gas Log	\$200	\$75
Gas stove, gas insert, pellet stove, pellet insert	\$500	\$350
Wood stove, wood insert	\$400	\$250

The voucher program began with a pilot program in the fall of 2006. The second phase ran in the spring of 2007. The third phase of the program started September 1, 2007 and ended March 31, 2008. The table below summarizes the incentive program status since the program was initially started in September 2006.

<b>Voucher Program (as of 7/10/08)</b>	
Total Vouchers Issued	2020
Environmental Justice Areas	656
Non-Environmental Justice Areas	1364
<b>Total Vouchers Reimbursed</b>	
Environmental Justice Areas	477
Non-Environmental Justice Areas	955
<b>Total Monies Reimbursed</b>	
Environmental Justice Areas	\$195,225
Non-Environmental Justice Areas	\$283,075

The third phase of the program ended March 31<sup>st</sup>, and retailers had until the end of June 2008 to install equipment. Consequently, the number of vouchers reimbursed will likely increase.

During the pilot phase and the second phase of the voucher program, staff did outreach through a number of avenues: initial media event, newspaper advertising, TV commercial, community events and utility fliers. Some participating retailers also did newspaper and TV/radio commercials. Staff added information about this change out program on the District's website ([www.airquality.org](http://www.airquality.org)). The consumer can download the voucher from this website. The voucher is available in English and Spanish, but as identified on the website, if assistance in another language is needed, then the District can be contacted. The website is also being used to educate people about the health impacts of wood smoke and how to reduce them through proper use of wood burning devices. Staff also utilized the public meetings for Rule 421, Mandatory Episodic Curtailment of Wood and Other Solid Fuel Burning to inform the public about the wood stove change out program.

The table below summarizes the types of change outs that have occurred through the voucher program:

	<b>Number of Devices</b>
Vouchers Redeemed	1432
<b>Removed or Modified Equipment</b>	
Open hearth fireplace	1264
Uncertified Wood stove/Insert	168
<b>New Equipment</b>	
Gas Stove/Insert	778
Gas Log	204
Pellet Stove/Insert	213
Certified Wood Stove/Insert	237

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### **Purpose of Proposed Changes**

Sacramento does not meet the federal health standards for fine particles, PM2.5. As reported in the Rule 421 staff report, many health studies have shown that PM2.5 pollution leads to serious

health consequences including heart attacks and premature death, shortening lives by an average of 10 years. Studies show that gas burning devices emit less than 1% of the PM2.5 emitted by certified wood and pellet stoves. Modifying or replacing existing fireplaces and uncertified wood stoves with gas devices provides even greater reductions. The incentive program was designed to encourage these replacements.

The rule development process and adoption of Rule 421 yielded new information that is being considered in designing the next phase of the incentive program to increase the air quality benefits, and to prevent the incentive program from degrading air quality. The two new factors are, 1) certified wood stoves are used more frequently, and burn more wood than fireplaces; and 2) Rule 421 allows certified devices and pellet stoves to burn when air quality is forecast to exceed the federal health standards but fireplaces and uncertified devices are not permitted to burn.

Certified devices often replace or supplement heat provided by central heating systems, whereas fireplaces are primarily used for ambiance. A study<sup>1</sup> conducted by University of California Berkley and the California Air Resources Board showed that fireplaces are used less than wood and pellet stoves. Consequently, incentives that encourage modifying or replacing fireplaces with certified wood burning inserts will have higher emissions from increased use that can offset the benefits from the replacements and may increase PM2.5 emissions from some residences. The Environmental Protection Agency has not recommended replacing open hearth fireplaces with certified inserts for this reason.

Rule 421 allows certified devices and pellet stoves to burn on forecast Stage 1 no-burn days exceeding the federal PM2.5 health standards. This was done in response to concerns expressed by the hearth products industry and some residents that they purchased the certified devices in good faith and in some cases using District incentive funds, with the expectation that they would be permitted to continue to burn on no-burn days. Continuing incentives for certified devices and pellet stoves that burn on no-burn days increases PM2.5 emissions on Stage 1 no burn days and may interfere with attainment efforts.

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### Proposed changes

1. Increase gas incentive - 68% of participants already choose gas replacement. Increasing this incentive is intended to encourage an even greater percentage of participants to choose this clean burning option.
2. Allow replacement of certified wood and pellet stoves with gas stoves - This option reduces PM2.5 emissions by 99%. The current program precludes this option. Allowing it will reduce wood burning on poor air quality, Stage 1 no-burn days.
3. Allow replacement of fireplaces, uncertified and certified wood, and pellet stoves with electric fireplaces - Electric fireplaces are the cleanest option emitting no PM2.5 at the residence.
4. Continue to incentivize certified wood and pellet stoves, but limit to the replacement of an existing uncertified wood stove/insert and lower the incentive amount – Three other California air districts will not be incentivizing certified wood or pellet stoves; South Coast

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<sup>1</sup> Houck, James2003. "Results of Wood Burning Survey – Sacramento, San Joaquin, and San Francisco Areas, University of California Berkeley/California Air Resources Board – GIS Study"

AQMD, San Joaquin Valley AQMD, and Bay Area AQMD. Although new information and Rule 421 requirements might suggest that eliminating wood incentives is appropriate, staff is recommending at this time to limit the incentive to replacing existing uncertified wood stoves/inserts.

5. Evaluate the feasibility, and if feasible, establish an incentive for removal of a wood burning device without replacement – El Dorado and some other areas in the nation have included incentives for removal of a wood burning device without replacement. Staff will evaluate the programs in other areas and if feasible will develop a program for Sacramento.

The table below summarizes the voucher levels that the Staff is proposing:

<b>Proposed Changes to Voucher Levels</b>				
<b>Equipment</b>	<b>Current Voucher Levels</b>		<b>Proposed Voucher Levels</b>	
	<b>Non-Environmental Justice Area</b>	<b>Environmental Justice Area</b>	<b>Non-Environmental Justice Area</b>	<b>Environmental Justice Area</b>
Uncertified stove/insert or open hearth fireplaces to gas stove/insert	\$350	\$500	\$450	\$750
Certified wood stove/insert or pellet stove/insert to gas stove/insert	-	-	\$350	\$500
Uncertified stove/insert or open hearth fireplaces to pellet stove/insert	\$350	\$500	\$250	\$250
Uncertified stove/insert to certified wood stove/insert	\$250	\$400	\$150	\$150
Open hearth fireplace to gas logs	\$75	\$200	\$75	\$200*
Open hearth fireplace, certified and uncertified wood stove/insert, or pellet stove/insert to electric stove/insert	-	-	\$75	\$200*

\* Even though these two options have one of the highest emission benefit potential, the incentive amount is set at \$75 and \$200 because these devices do not cost as much.

### **Environmental Review**

This program will fund the replacement of older, dirtier wood burning devices with new, cleaner, more efficient devices. This will lead to a beneficial impact by reducing the emissions of particulate, NOx and hydrocarbons.

This program qualifies for a Class 8 categorical exemption as an action by a regulatory agency, as authorized by state law, for the protection of the environment (Section 15308 of the state CEQA Guidelines). The exceptions to categorical exemptions for sensitive locations, cumulative impact, significant effect, scenic resources, toxic sites and historical resources do not apply to this incentive program.

California Public Resources Code (Section 21159) requires an environmental analysis of the reasonably foreseeable methods of compliance. The analysis must include the following information for the proposed rule adoption.

1. An analysis of the reasonably foreseeable environmental impacts of the methods of compliance.
2. An analysis of the reasonably foreseeable mitigation measures.
3. An analysis of the reasonably foreseeable alternative means of compliance with the rule or regulation.

#### Environmental Impacts, Mitigation Measures, and Alternatives

Compliance Methods	Reasonably Foreseeable Environmental Impacts	Reasonably Foreseeable Mitigation Measures
Replace an existing uncertified wood stove/insert with a certified or equivalent device	The replacement of the uncertified device will result in a reduction of PM, NOX and ROG resulting in a beneficial impact.	No mitigation necessary
	The replaced device will be required to be disposed of through a certified recycler. The scrap metal is reprocessed into new steel. There are no potential impacts to the local landfills from the disposal of these devices.	No mitigation necessary
Modify an existing open hearth fireplace by adding a gas insert or gas log.	The replacement of the uncertified device will result in a reduction of PM, NOX and ROG resulting in a beneficial impact.	No mitigation necessary

The District has determined that no reasonably foreseeable environmental impacts will be caused by the proposed incentive program.

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#### Next Steps

If the Board approves Staff's recommended changes in the voucher amounts, then the changed amounts will be reflected in the next phase. At this time, staff anticipates running the next phase of the program starting September 1, 2008 and concluding March 31, 2009. The retailers would need to have any equipment installed by June 30, 2009.

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**Conclusion**

The voucher incentive program has been successful, replacing or retrofitting over 1400 wood burning devices. That makes this the most successful replacement program in the nation to date. New information and adoption of Rule 421 support changes to the incentive program to increase air quality benefits and avoid interfering with attainment of the federal health standards. Staff is recommending changes in the voucher amounts and adding two additional options for change outs to increase the number of residents choosing to use the cleanest options. Staff requests Board approval of the following incentive amounts and options:

<b>Proposed Voucher Levels</b>		
<b>Equipment</b>	<b>Proposed Voucher Levels</b>	
	<b>Non-Environmental Justice Area</b>	<b>Environmental Justice Area</b>
Uncertified stove/insert or open hearth fireplaces to gas stove/insert	\$450	\$750
Certified wood stove/insert or pellet stove/insert to gas stove/insert	\$350	\$500
Uncertified stove/insert or open hearth fireplaces to pellet stove/insert	\$250	\$250
Uncertified stove/insert to certified wood stove/insert	\$150	\$150
Open hearth fireplace to gas logs	\$75	\$200
Open hearth fireplace, certified and uncertified wood stove/insert, or pellet stove/insert to electric stove/insert	\$75	\$200

Staff also requests that the Board authorize the allocation of the SEED funds collected during Fiscal Year 08/09 to the Wood Stove/Fireplace Change Out Program.

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Respectfully submitted,

Approved as to form

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Larry Greene, Air Pollution Control Officer  
Sacramento Metropolitan  
Air Quality Management District

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Kathrine Pittard, District Counsel  
Sacramento Metropolitan  
Air Quality Management District

Attachment A

Board Resolution

Proposed Changes to  
Wood Stove/Fireplace Change Out Incentive Program

**RESOLUTION NO. AQM \_\_\_\_\_**  
**BOARD OF DIRECTORS OF THE**  
**SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT**

**PROPOSED CHANGES TO**  
**WOOD STOVE/FIREPLACE CHANGE OUT INCENTIVE PROGRAM**

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District at the June 22, 2006 Board meeting approved the Wood Stove and Fireplace Change Out Incentive Program and authorized Staff to make adjustments to the program details such as forms and agreements in the future to address any issues that may arise; and

**WHEREAS**, both coarse (PM10) and fine (PM2.5) particulate are linked to serious health impacts, including premature mortality, acute and chronic bronchitis, asthma attacks and emergency room visits, upper respiratory illnesses, and days with work loss; and

**WHEREAS**, wood smoke contributes to PM10 and PM2.5 air quality problems in Sacramento County; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has allocated Solutions for the Environment and Economic Development (SEED) funds and CEQA mitigation fees at the June 22, 2006 and May 24, 2007 Board meeting to support the overall Wood Stove/Fireplace Change Out Programs; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District approved implementation of this program to provide financial incentives to partially offset the cost of the replacement of specified devices for Sacramento County residents on first come, first serve basis until the funds are exhausted; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District requested annual updates on this program; and

**WHEREAS**, two issues were identified regarding the incentive program: 1) certified devices are used more frequently and/or burn more wood than fireplaces, and 2) providing incentives for certified devices that are permitted to burn on no burn days that exceed federal health standards may increase the number of certified devices, therefore incentives for wood burning devices in some circumstances may degrade air quality; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the following changes are needed in the incentive funding:

- 1) Increase the incentive for replacing uncertified wood stoves/inserts or open hearth fireplaces with a gas device,
- 2) Add an incentive for replacing a wood burning certified device or a pellet device with a gas burning device,
- 3) Continue funding certified wood and pellet devices, but limit to replacement of an existing uncertified wood stove/insert and lower the incentive amount,
- 4) Add an incentive for replacing a certified or uncertified wood burning device or a pellet device with an electric device; and

**WHEREAS**, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that an analysis of whether it is feasible to establish an incentive for removing wood burning devices without replacement is necessary; and

**WHEREAS**, the California Environmental Quality Act (CEQA) under Section 15308 of the State CEQA Guidelines exempts projects that are an action by a regulatory agency for the protection of the environment and there are no foreseeable environmental impacts.

**NOW, THEREFORE, BE IT RESOLVED THAT** this rule project is an action by a regulatory agency for the protection of the environment and there are no foreseeable environmental impacts and, therefore, is exempt from CEQA; and

**BE IT FURTHER RESOLVED THAT** the Board approves the following incentive levels; and

Equipment	Proposed Voucher Levels	
	Non-Environmental Justice Area	Environmental Justice Area
Uncertified stove/insert or open hearth fireplaces to gas stove/insert	\$450	\$750
Certified wood stove/insert or pellet stove/insert to gas stove/insert	\$350	\$500
Uncertified stove/insert or open hearth fireplaces to pellet stove/insert	\$250	\$250
Uncertified stove/insert to certified wood stove/insert	\$150	\$150
Open hearth fireplace to gas logs	\$75	\$200
Open hearth fireplace, certified and uncertified wood stove/insert, or pellet stove/insert to electric stove/insert	\$75	\$200

**BE IT FURTHER RESOLVED THAT** the Board approves the use of SEED funding received in FY 08/09 for the overall Wood Stove/Fireplace Change Out Programs; and

**BE IT FURTHER RESOLVED THAT** if the analysis determines that it is feasible to remove devices without replacement, then the Air Pollution Control Officer is authorized to establish an incentive for removing the wood burning device without replacement at an amount not to exceed \$150.

**ON A MOTION** by Director \_\_\_\_\_, and seconded by Director \_\_\_\_\_, the foregoing Resolution was passed and adopted by the Board of Directors of the Sacramento Metropolitan Air Quality Management District this 24<sup>th</sup> day of July, 2008 by the following vote, to wit:

AYES: Directors

NOES: Directors

ABSENT: Directors

\_\_\_\_\_  
 Chairperson, Board of Directors  
 Sacramento Metropolitan Air  
 Quality Management District

(SEAL)

ATTEST: \_\_\_\_\_  
 Clerk of the Board of Directors