

**SACRAMENTO METROPOLITAN AIR QUALITY
MANAGEMENT DISTRICT**

For Agenda of **June 22, 2006**

To: Board of Directors
Sacramento Metropolitan Air Quality Management District

From: Larry Greene
Air Pollution Control Officer

Subject: **Project SEED (Solutions for the Environment and Economic Development)
Funding Allocation – Wood Stove and Wood Fireplace Change Out
Incentive Program**

Recommendation

Staff recommends the Board:

1. Determine that the Wood Stove and Wood Fireplace Change Out Incentive Program is exempt from the California Environmental Quality Act (CEQA).
 2. Approve the proposed residential Wood Stove/Fireplace Changeout 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 ones.
 3. Authorize the use of \$1,503,136 for a Wood Stove/fireplace Changeout Incentive Program.
 4. Authorize the Air Pollution Control Officer to make changes to the attached forms as needed and approved by District Counsel.
 5. Direct Staff to return in January 2007 to report back on pilot program.
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Discussion

Staff is proposing a program to provide incentives for residents living in Sacramento County to replace their old uncertified wood burning appliances (i.e., wood stoves, fireplaces) with new cleaner burning ones. There are 320,366 homes in Sacramento County equipped with fireplaces or wood stoves. Your Board approved the development of this incentive program at the April 2006 hearing. This item requests approval of the program details for the first implementation phase.

Wood smoke generated from residential wood burning is a common source of particulate matter, hydrocarbons, nitrogen oxides and toxic air contaminants. The District is currently designated as a nonattainment area for the state and federal PM10¹ standards and for the state PM2.5 standard, and the state and federal ozone standards. 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. Exposure to ozone can irritate and damage the human respiratory system, resulting in decreased lung function, development and aggravation of asthma,

¹ Based on 1998-2000 monitoring data, EPA made a finding (February 15, 2002 Federal Register, Volume 67, Number 32 Page 7082 et. Seq) that Sacramento County attained the federal ambient PM10 standard by the applicable December 31, 2000 attainment deadline. Note that this EPA finding did not redesignate the Sacramento district to attainment.

increased risk of cardiovascular problems such as heart attacks and strokes, increased hospitalizations and emergency room visits, and premature deaths.

Reducing wood burning will result in improvements in both wintertime particulate matter levels and ozone levels in May and September. New certified wood burning appliances emit about 85% less particulate than older uncertified appliances. According to the United States Environmental Protection Agency (USEPA), replacing 20 non-certified, older stoves with 20 USEPA certified ones can prevent the emissions of one ton of particulate matter (PM2.5) into our environment per year. The certified stoves also burn more efficiently, reducing wood fuel costs, NOx and hydrocarbon emissions by 89% when compared to an open hearth fireplace. Some of the emission reductions that will be generated from this program are being proposed to be deposited into the Community Bank² to be available for use by stationary sources in the District.

An incentive program to replace existing uncertified appliances was included as a commitment by the Board under the implementation schedule developed in response to SB656. The incentive program was an option to be considered under the further study measure to develop a program to require replacement of uncertified appliances at time of resale of the home.

There will be two components to the change out program. The first component will be in the form of vouchers to replace an existing dirty wood burning appliance with a cleaner appliance for residents living within Sacramento County. Half of the funding is proposed to be spent in Environmental Justice areas within Sacramento County. Secondly, funding is being reserved for a future low income assistance program still under development.

Staff has worked with local hearth product retailers, the Hearth, Patio and Barbeque Association (HPBA), hearth product manufacturers, chimney sweep business owners, and a nonprofit organization geared towards weatherization of low income homes to leverage discounts, provide additional incentive funding, provide free or discounted installation labor, and provide financial support to increase advertising. These efforts are intended to leverage our limited funding to create the largest and most effective program feasible to replace and reduce the emissions from existing wood burning appliances.

Staff plans to implement this program until the funds are depleted. There is currently \$1.5 million of funding available. Staff proposes to distribute this funding as follows:

1. August 2006 Program - \$300,000 for vouchers
2. January 2007 - \$603,136 for vouchers
3. Low Income Households - \$600,000
4. At least half the funding in each stage must be used in environmental justice areas. This will fund between 2700-3900 replacements, possibly more.

The program is proposed to be initiated this summer with a limited amount of funding to gain experience and make adjustments, if needed, before allocating the remainder of the funding. The amount of incentive monies will vary from \$25 to \$350 per device for the voucher program depending on the income level and the type of appliance being installed. A gas or pellet stove will qualify for more funding than a wood stove. Old wood burning appliances will be destroyed

² There is a total of 14.1 tons of PM10 emission credits currently available in the three accounts (Community Bank, Priority Reserve Bank, and Essential Public Service). These balances are considered very low by District standards.

to ensure that they are not resold for use in the District. The potential emission benefits from this funding are approximately 25- 35 tons per year of particulate matter and one ton per year of NOx, with a cost effectiveness of \$13.76 – \$19.43/pound of particulate matter for the voucher program. The current rates for PM10 credits are \$31,416/ton for small sources and \$33,685/ton for larger sources. The specific program details are discussed in the Staff Report (Attachment B, Page 10)

Funding

Staff is proposing to use SEED funds and mitigation fees collected from developers to provide incentive monies for residents in Sacramento County who would like to replace their old wood stoves and fireplaces with new cleaner burning appliances. Rule 205 requires that SEED funds which are generated from the emission reduction credit loans from the Community Bank and Priority Reserve Bank to be used to fund innovative emission reduction programs. The emission reductions realized from the program are deposited in the Community Bank. The SEED funds were authorized to fund a wood stove and fireplace change out incentive program by the Board of Directors at the April 2006 Board hearing.

Mitigation fees may be paid when developers choose to pay fees in lieu of meeting local ordinance requirements to meet specified emission reductions for their projects. These fees are then used by the District to achieve emissions reductions from other programs.

Mitigation fees are also paid when certain land use projects exceed the air quality significance thresholds established pursuant to CEQA. These fees may be paid to mitigate emissions that occur from the construction of land use projects, called construction mitigation fees, or to mitigate the emissions impacts from the land use project after fully constructed, called operational mitigation fees.

Generally the construction mitigation fees are collected when emissions exceed the NOx threshold. As discussed in the health impacts section, NOx from construction and other sources contributes to both particulate matter and ozone pollution. The program will reduce particulate matter but will also reduce NOx by reducing the amount of wood burned. These reductions will mitigate the particulate matter and ozone impacts resulting from construction NOx emissions. Because NOx must undergo chemical reactions to contribute to these pollutants, the impacts from construction and benefits from this program are both regional in nature, but will also reduce toxic and particulate pollution in the neighborhood near where the replacements occur. These same considerations apply to operational mitigation fees from hydrocarbon impacts, because hydrocarbons contribute to particulate matter and ozone pollution and this program also reduces hydrocarbon emissions.

The District currently has \$1,503,136 (\$743,000 in the SEED funds and additional \$760,136 monies from CEQA mitigation fees) that will be available for this program. Additional incentive monies will be provided by the manufacturers and retailers of these appliances in form of rebates/discounts.

The funding is proposed to be allocated in the following way:

Fall 2006 Voucher Funding: \$150,000 SEED
\$150,000 mitigation fees

At least half the funding must be used in environmental justice areas. This will fund between 850-1200 replacements, possibly more.

Low Income Assistance - \$300,000 SEED
\$300,000 mitigation fees

If plans work out as anticipated, this will fund approximately 150-300 units because full cost of the device is paid. At least half the funding must be used in environmental justice areas for this program also.

January 2007 Voucher - \$293,000 SEED
\$310,136 CEQA mitigation fees

At least half the funding must be used in environmental justice areas. This will fund between 1700-2400 replacements, possibly more.

Environmental Review and Compliance

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 does not create requirements that may have an adverse effect on the environment. Pursuant to state CEQA Guidelines, the District finds that the adoption of the proposed program is exempt from CEQA (Class 8 Categorical Exemption, Action by Regulatory Agencies for Protection of the Environment; §15308 State CEQA Guidelines).

California Public Resources Code (Section 21159) requires an environmental analysis of the reasonably foreseeable methods of compliance. The District has determined that no reasonably foreseeable environmental impacts will be caused by the proposed incentive program.

Conclusion

Staff recommends that the Board approves the proposed woodstove changeout program. The replacements and retrofit of high emitting residential wood burning appliances will significantly reduce particulate matter emissions in the District and therefore positively impact the health of residents in Sacramento County.

Respectfully submitted,

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

Approved as to form:

Kathy Pittard
District Counsel
Sacramento Metropolitan
Air Quality Management District

Attachment:

- A. Resolution
- B. Staff Report - Wood Stoves & Wood Fireplace Changeout Incentive Program

Attachment A

Board Resolution

RESOLUTION NO. AQM_____.
BOARD OF DIRECTORS
OF THE SACRAMENTO METROPOLITAN AIR QUALITY
MANAGEMENT DISTRICT

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District adopted Rule 205, COMMUNITY BANK AND PRIORITY RESERVE BANK; and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District authorized and directed Staff to proceed with the development of a residential wood burning appliances change out program at the April 27, 2006 Board meeting, and the Staff developed the attached Wood Stove and Wood Fireplace Change Out Incentive Program; and

WHEREAS, both coarse (PM10) and fine (PM2.5) particulate, which are some of the components of wood smoke, 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, NO_x is a precursor to ozone and ozone is a strong irritant that adversely affects human health and damages crops and other environmental resources, and

WHEREAS, implementation of this Program will reduce approximately in 24.6 to 35.5 tons of particulate matter emissions and 0.8 to 1.2 tons of nitrogen oxide emissions, and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that this program will be implemented until the available funding is exhausted, and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the program be limited to residential properties located in Sacramento County, and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that there is \$743,000 currently available in the SEED account and \$760,136 currently available from mitigation fees to fund the proposed program for the replacement of uncertified residential wood burning appliances with cleaner EPA-certified devices or gaseous or pellet fired devices, and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that \$600,000 be reserved to develop an uncertified wood burning appliances replacement program for Low Income Households to be brought to the Board for approval in 2007; and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District has determined that the implementation of this program in non-low income residences be through a voucher system that partially offsets the cost of the replacement and

that the vouchers will be available 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 has determined that the Air Pollution Control Officer will provide the Board with annual updates on this program, and

WHEREAS, CEQA mitigation fees collected for emission mitigation from construction projects can be used to fund this Program since the reduction of particulate matter and NOx will mitigate the particulate matter and the ozone impacts resulting from construction related NOx impacts; and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District adopted an Environmental Justice Policy for certain mobile source incentive programs at the January 23, 2003 Board meeting requiring fifty percent of the available funds be used to fund projects within Environmental Justice Areas, and

WHEREAS, the Board of Directors of the Sacramento Metropolitan Air Quality Management District adopted Environmental Justice Policies at the April 27, 2006 meeting that require District programs to integrate environmental justice into all of our programs.

NOW, THEREFORE, BE IT RESOLVED THAT the Board approves the Wood Stove and Wood Fireplace Change Out Incentive Program and authorizes Staff to make adjustments to the program details such as forms and agreements in the future to address any issues that may arise after the first phase of implementation of this program, and

BE IT FURTHER RESOLVED THAT the Air Pollution Control Officer will provide the Board with annual updates on this program, and

BE IT FURTHER RESOLVED THAT the Board directs Staff to bank only the emission reductions realized from the implementation of this program using the SEED funding, and

BE IT FURTHER RESOLVED THAT this program be implemented until the available funding is exhausted, and

BE IT FURTHER RESOLVED THAT the program be limited to residential properties located in the Sacramento County, and

BE IT FURTHER RESOLVED THAT \$743,000 funds currently available in the SEED account and \$760,136 funds from mitigation fees, may be used to fund the proposed program for the replacement of uncertified residential wood burning appliances with cleaner EPA-certified devices or gaseous or pellet fired devices, and

BE IT FURTHER RESOLVED THAT \$600,000 funds be reserved to replacing uncertified wood burning appliances in low income residences to be brought to the Board for approval in 2007, and

BE IT FURTHER RESOLVED THAT fifty percent of the available funds be used to implement this program in areas in the Sacramento County designated as Environmental Justice Areas, and

NOW, THEREFORE, BE IT RESOLVED THAT the implementation of this program in non-low income residences through a voucher system and the vouchers will be available on first come, first serve basis until the funds are exhausted.

ON A MOTION by Director _____, seconded by Director _____, the foregoing resolution was passed and adopted by the Board of Directors of the Sacramento Metropolitan Air Quality Management District, State of California, this 22nd day of June 2006, by the following vote, to wit:

AYES: Directors

NOES: Directors

ABSENT: Directors

Chairperson of the Board
Sacramento Metropolitan Air
Quality Management District
State of California

(SEAL)

ATTEST: _____
Clerk of the Board
Sacramento Metropolitan Air Quality Management District

Attachment B

Staff Report