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August 13, 2015

Mary Nichols, Chairperson
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Support for Woodstove Changeout Program in Second Investment Plan

Dear Chairperson Nichols,

On behalf of the Northern Sierra Air Quality Management District (District), we are writing in support of a woodstove changeout concept included in the Concept Paper for the Cap-and-Trade Auction Proceeds Second Investment Plan released July 27, 2015.

The District covers the three rural counties of Plumas, Sierra and Nevada. The air quality situation in Portola, Plumas County is dire – not only designated as a federal PM2.5 nonattainment area, but also recently designated by the Environmental Protection Agency as one of the **top five most polluted areas in the nation** relative to the annual PM2.5 NAAQS. Portola is typical of many rural mountain communities – communities which rely on cheap and available wood as the primary fuel and have strong, wintertime inversions, trapping the smoke in the breathing zone of residents.

A recent District survey uncovered that 70% of residents in Portola use woodstoves, and it is estimated that 65% are low-efficiency (non-EPA certified) wood stoves. There is no natural gas supplied to Portola, or any part of Plumas County. When wood is burned in these uncertified stoves, many pollutants are emitted, including greenhouse gases such as carbon dioxide, methane, and nitrous oxide. A woodstove changeout program would result in significant and measureable reductions of these pollutants, as much as a 1 ton reduction in CO₂e per cord of wood for every uncertified stove converted to a certified stove with catalyst.

A woodstove changeout program would also have measureable co-benefits. Wood smoke contains black carbon, a short-lived climate pollutant specifically mentioned in Governor Brown's January 2015 Inaugural Address. Estimates previously made by ARB indicate that fireplaces are the fourth largest contributor to black carbon emissions, making it essential that we decrease black carbon emissions from these sources in order to meet the Governor's targets.

The impact of a woodstove changeout on PM2.5 concentrations was estimated by Air Resources Board (ARB) staff using the results of the Positive Matrix Factorization (PMF) model and the PM2.5 Benefit Calculator (Calculator) spreadsheet which they developed. PMF was used to identify PM2.5 sources in the Portola nonattainment area and determine their contribution to both the annual and 24-hr design values. The PMF model identified wood burning as a major contributor to PM2.5 mass, responsible for 87 percent mass on exceedance days. Since all other sources combined contribute a very small portion of the total PM2.5 mass, ARB assumes that changes in emissions contributing to these lesser sources would have a negligible impact on the total PM2.5 mass.

ARB has further determined that in order to meet attainment of the federal PM2.5

standard, 930 uncertified wood stoves will need to be replaced within the nonattainment area by the year 2021. Since Portola's median household income is ~\$35,000, Portola is extremely unlikely to be able to meet the current federal air quality standard for PM2.5 without funding assistance.

The District has administered wood stove changeout programs in the past (over \$140,000 distributed) and is ready to proceed with a wood stove changeout program in the Portola area as soon as funding is secured. The District is prepared to cooperate with and assist other air districts with wood stove programs, as needed. Recently, the District has successfully partnered with other agencies such as USDA Rural Development to identify low-income, senior residents for replacement of non-certified wood stoves under the 504 Grant program.

In preparation of a changeout program, the District, in partnership with local wood stove retailers and the Hearth, Patio and Barbeque Association, held a community outreach event to educate wood stove users on best practices for seasoning, storing, and burning wood to achieve better stove efficiency and lower emissions.

Replacing a number of uncertified stoves with either the most efficient, lowest polluting woodstoves or with electric heating devices will produce major benefits in terms of decreased climate pollutants, lower levels of toxic air pollutants, and an overall increase in public health.

We greatly appreciate the Air Resources Board's work on the Concept Paper for the Cap-and-Trade Auction Proceeds Second Investment Plan, and especially commend the inclusion of a woodstove changeout provision. Our district looks forward to working with you to further develop a statewide program for wood stove replacements to help California meet its climate and public health goals.

Sincerely,



Gretchen Bennitt, Executive Director
Northern Sierra Air Quality Management District

CC:

Northern Sierra Air Quality Management District Board Members:

Plumas County Supervisor Thrall, Chair
Plumas County Supervisor Swofford, Vice-Chair
Nevada County Supervisor Scofield
Nevada County Supervisor Anderson
Sierra County Supervisor Roen
Sierra County Supervisor Huebner

Robert Meacher, Portola City Manager

Assemblyman Brian Dahle

Representative Doug LaMalfa