

Clean Air in Seeley Lake?

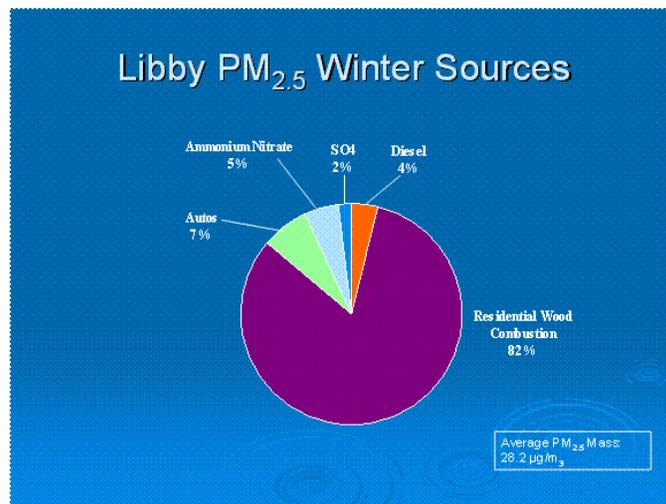
by Carol Evans and Jay Kolbe for Clearwater Resource Council

Do we need to look seriously at air quality in Seeley Lake? We are all here because we love the pristine wildlife habitat, air, water and individual liberties. However, due to new EPA air quality standards, we may need to take action to avoid regulations that limit our use of wood stoves and industrial equipment.

Officials from the Missoula County Air Quality division of the city/county Health Department were in Seeley Lake Tuesday, Jan. 22 to address the community about particulate emission standards which were adopted by the EPA in March, 2007. Although "PM10" levels (larger particles) are not of concern in Seeley Lake "PM2.5" particulate levels (much smaller particles) have recently exceeded EPA limits and may trigger additional regulations.

So, what do PM2.5 and PM10 mean? Basically, they refer to the size of particulate matter floating in the air around us and that, if present in high enough concentrations, can cause serious health problems. PM 2.5 is a much smaller particle than PM10. The EPA has been collecting data on health effects of small, airborne particles and has found that these very small particles (measured in microns, but still visible in the form of smoke) wreak havoc on lung and heart tissue. People with lung or heart problems are most at risk, but also very young children and the elderly can be seriously affected. Some of the health related issues include premature death, decreased lung function, increased asthma, heart attack, irregular heart beat, and chronic bronchitis.

Although residents sensitive to particulate pollution often have severe reactions to heavy smoke from summer fires, many people are unaware that our valley's air holds dangerously high particulate concentrations during the winter months as well. Most of the PM2.5 pollution present in winter is produced by woodstove emissions. The accompanying chart from a similar valley (Libby, MT) shows how much woodstove smoke contributes to air pollution.



Because it is much more difficult to control smoke from wildfires than it is from woodstoves, solutions are centered on wood burning stoves. Pollution from wood stoves is a particular concern in the winter when cold, stagnant air and temperature inversions limit air movement.

Communities located in valleys are more strongly affected. As wood burning increases on cold, clear, calm nights, smoke is unable to rise and disperse. Seeley air exceeded EPA standards in 2006 only on days during the winter when inversions were present.

A question from the audience at Tuesday's meeting was "Why is Seeley Lake even being monitored?" Jim Carlson from the Health Department answered by explaining that the federal Clean Air Act mandates that counties monitor and review air quality throughout their jurisdiction. In the placement and reading of monitors, the County has discovered that Seeley Lake has been above the allowed level of particulates on several days in the winter. While we are not at high enough levels to trigger immediate action or fines, we may be if PM2.5 levels exceed standards in the next few years. Missoula County is urging the community to work to solve the problem so that regulations on woodstoves and industry could be avoided.

Everyone has heard "an ounce of prevention is worth a pound of cure". In this case, it's definitely true. If Seeley Lake becomes a "non-attainment area", the County will be forced to develop a plan for lowering particulate levels. Everyone at the meeting recognized that woodburning is critically important to many Seeley residents. By voluntarily upgrading stoves and operating them in ways that reduce particulate emissions, the presenters felt that we can avoid regulations that will affect our lifestyles and livelihoods.

One way to solve some of the air quality problems is to learn how to burn wood, what kinds of wood to burn, and what kinds of stoves to use. We can reduce PM2.5 emissions from woodstoves by exchanging old woodstoves for high efficiency models, burning dry well-cured wood, burning smaller hotter fires, and avoiding damping. Conventional woodstoves can put out 10-150 grams of particles per hour. Non-catalytic, EPA approved stoves reduce output to less than 7.5 grams per hour. Catalytic, EPA approved stoves reduce output to less than 4.1 grams. Pellet stoves can reduce output to less than 1 gram per hour. Improving the efficiency of the house itself through improved weatherstripping, increased insulation, and sealing air leaks have been shown to decrease woodstove use and emissions.

The Clearwater Resource Council will begin exploring ways to fund stove change out programs, educate people on more efficient practices, and ways we can work with the County to avoid triggering more regulation of residential woodburning. We would very much like to engage the entire Seeley Lake Community to help improve our winter air quality and ensure that people can continue to affordably heat their homes. Voluntary minor changes now may help us avoid future government mandates. Let's work together to solve this problem ourselves!

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