

Episode 44a, a British Columbia, Canada, woman who lives next to a residential wood burner, her 31 posts in September and early October, 2022

What follows are 31 posts by Carrie, who lives next to a residential wood burner in British Columbia, Canada. Carrie did not post every day, so her 31 posts cover the period from September 1, 2022 through the first week in October. On the thirty first day, Carrie posted, "These filters are about six weeks old, you can clearly see the difference from the new one. Our home is well sealed to reduce indoor air smoke but still there is far too much Particulate Matter inside our house. I really feel for the children I saw at the daycare in town since the air is far worse from dust, industry, vehicles and even some burning going on today. We are outside the city and our air is a LITTLE better, but not much."



On the thirtieth day, Carrie commented on a 2014 article about views on air pollution of a then-program-manager for the British Columbia Lung Association. The British Columbia newspaper article dated Oct 14, 2014 focused on remarks by B C Lung Association programs manager Dr. Menn Biagtan as she held a public forum on air pollution in Merritt, British Columbia, Canada. The B C Lung Association program manager stated that if you can see PM 10 it is not harmful to you since the upper respiratory tract will take care of it.

Carrie posted, "What a joke! The panel of experts and the forum were organized by the B.C. Lung Association. Since then (2014) we have added even more air pollutants with the installation of a biomass plant, new cement plant, paving plant, several gravel pits, dust from the mine, and an increase in wood burning stoves, and debris burning. But, she doesn't live here in it, and still has her job, so what does she care?"

An Australian commented back to Carrie:

And do they really think people have been sucked in by this load of nonsense? And what happens when it is announced there will be no air monitoring for months? Guess what? I get the drift all these people are in it together. It sure takes the cake! "If you can see it, it's probably not the kind of dust that's very harmful to your health."

Excerpt from the newspaper article from 2014. "That's the message a panel of health and environmental experts told a crowd of about 15 people gathered at the Civic Centre for a forum on air pollution and public health on October 17 (2014). Ministry of Environment air pollution meteorologist Ralph Adams said the main air pollution issue in Merritt is particulate matter. Adams said the two types of particulate matter that are of concern in Merritt are fine particles produced by burning and other industrial activities, and larger particles produced by industrial sites. "If you see it on your car or your lawn furniture or your window sill, that's the very largest kind of particle," Adams said. He said air pollution monitoring in Merritt is on hold until January, when the ministry's monitoring technician returns. Adams also sits on the city's air quality committee and, by way of his work with the ministry, is involved in industry permitting. He said the two new plants in Merritt, the Diacarbon pellet plant and the Merritt Green Energy Project, are not expected to contribute to an increase in air pollution. The Merritt Green Energy Project plant will use wood waste from neighbouring Tolko, and will transport that wood waste on a system of pneumatic conveyor belts. The dryers at the pellet plant are belt dryers instead of drums, which are powered by natural gas and run at far lower temperatures than drum dryers, producing much less smoke. The panelists began the forum with a presentation, which included a diagram to illustrate the size of particulate matter in comparison to a human hair.

While large particles of dust such as fugitive dust kicked up from road shoulders and from sawmills is taken care of in the upper respiratory system, it's the smaller particulate matter which can get into people's lungs that poses a bigger health risk. PM2.5 is about one-thirtieth of the width of a human hair. "Inside the human body, the larger the particles are, the less deeply they can penetrate into your lungs," one panelist said. Air pollution can contribute to heart and circulatory system issues as well as the hardening of arteries. "It's more than just irritation and having a cough," he said.

A panelist said while it's unknown above what threshold particulate matter becomes dangerous to human health, it is known that a reduction in air pollution is associated with health benefits. Another panelist said, "In British Columbia, we're very fortunate to have some of the cleanest air in the world." That statement was made at the end of the October 2014 newspaper article.

In October 2022, the Australian commenter said to Carrie, "And do they really think people have been sucked in by this load of nonsense? And what happens when it is announced there will be no air monitoring for months? Guess what? I get the drift all these people are in it together. I have taken a screen grab of this, it sure takes the cake!"

"I agree, our air quality was a non issue when it came to industrializing our community. I am appalled that B C Lung would buy into this event. Today our air quality is consistently unhealthy."


Carrie said "He said air pollution monitoring in Merritt is on hold until January (2015), when the ministry's monitoring technician returns. Adams also sits on the city's air quality committee and, by way of his work with the ministry, is involved in industry permitting." What do you make of this?"

The Australian commenter said to Carrie, " I'm not sure I understand, who is Adams?"

Carrie said, "I really don't believe in anything the present city council and mayor have to say. There is a new election coming soon, but we (are) outside city limits so we cannot vote for them."

The Australian commenter asked, "Adams was mentioned in the article, Ministry of Environment air pollution meteorologist. It just seemed like there was a conflict of interest if involved in industry permitting as well ? Are you still dealing with these same people from back then? So Carrie who and when do you get to vote for in council elections?"

Carrie replied " that meteorologist is not involved any longer, different council too. We vote for our Regional Directors for the Thompson Nicola Region and ours is a former mayor of Merritt city. He has heard plenty from me over our air quality and does not answer my emails any more. There has been slight improvements by the woodworking shop not burning, but still far too many other burners."

The Australian commenter said "Keep up the rage when your health allows 

Carrie replied "never stop doing what you think is right for others. Everyone benefits from clean air, water and lands."

"Never, never be afraid to do what's right, especially if the well-being of a person or animal is at stake."

A commenter in British Columbia said, "You have GOT to be kidding, what a sham, outrageous fraudulent comments, all air pollution is pollution, OMG , and wood smoke is highly carcinogenic."

Carrie replied, "right, this was seven years ago, had I known about it then I would have been there and protesting loudly."

On the twenty ninth day, Carrie posted, "Since it's another indoor day, way too smoky from wild fires to go out. I decided to bake something to make me feel better, nothing like apple pie to do that." And "Fire fighters pay a huge price for our safety. They inhale smoke and are highly susceptible to lung cancer, heat exhaustion and burnout. Over 20% of this year's wild fires were human caused. This is not acceptable at all. Campfire bans, debris burning and prescribed burns are not acceptable actions these days. We already live in too much air polluting smoke."

On the twenty eighth day, Carrie posted, "Smoke from the wild fires still cover our beautiful valley, then the debris burners fire up. Last evening's burning on Paige Street in Lower Nicola. And along the river on Marshall Drive, where the smoke blew over the Shulus Reserve and the city of Merritt."

On the twenty seventh day, Carrie posted, "Marshall road burner in Lower Nicola burns all the time, last night the smoke travelled toward the Shulus reserve and city of Merritt." And, "Climate change is negatively affecting our weather patterns all over the world, and it's time to change the way we do things now. Don't listen to these fools, they are only in it for themselves."

On the twenty sixth day, when she noted that NASA & Google are improving local air pollution monitoring, Carrie posted, "Well it's about time! We continue to breathe polluted air daily and have little recourse to help us change that."

On the twenty fifth day, Carrie noted "Our local air quality monitoring reading on their website states the air is "Excellent" today. I dont know when they update the information, but the air is far from excellent. I found this reading on the latest air quality data on a government website. It seems more accurate than the other readings. PM 2.5= 25 ug/m3 (micrograms per cubic meter), PM10 50 ug/m5 Ozone 3 62ppm, Nitrogen dioxide 60ppb, SO2 (sulphur dioxide) 70ppb, TRS (total reduced sulpher) 5ppb Our air quality is far from safe today so use caution outside and turn on your air purifiers inside. It is unhealthy for sensitive people living in this valley. It was way worse than the picture shows this morning."

Another British Columbian commented, "Those are the daily and hourly standards... did the map say what the hourly readings were?"

Carrie replied, "not over the weekend. In fact today they sent me a notice that the air quality warnings were lifted in our area. Still it is too smoky for us to go out and be in. They are not accurate in our High Smoke Sensitivity Zone valley." The other British Columbian commented "sounds like the warnings might not be based on the actual conditions either?" Carrie replied "seems like it."

On the twenty fourth day, Carrie posted, "Debris burning across the valley, wood stove burning next door, why are these people allowed to do this in a High Smoke Sensitivity valley? The air was beginning to clear from the months long forest fires, and now some people decide to burn and smoke it up again. There should be a carbon tax on wood stove users and a complete ban on debris burning. The wood burner is right next door and across the street from a stroke victim, and he doesn't care that the smoke gets into our house."

The other British Columbian commented, "Darn burners 😡"

On the twenty third day, Carrie posted an article about CleanBC Income Qualified Rebates for Air-to-Water Heat Pumps. On the twenty second day, Carrie posted about Sardinia, Italy, using goats to graze away forest debris, "Grazing animals, making wood chips from debris, there has to be a better way than burning and making huge amounts of smoke in our communities, possibly risking our children getting asthma or worse. Let's look for new traditions and methods of forestry control. And please do something about human caused wild fires, there is no excuse for that." And "Burning forests contributes to huge amounts of CO2, toxic chemicals such as benzene, PHA, small particulate matter and causes health risks to all people. Increasing air pollution will not help control climate change which is causing huge forest fires and heat domes. Time to stop all burning."

An Australian commented, "Controlled burns, planned burns, scholarly articles say these don't halt wild fires under climate change. You don't fight fire with fire, you fight fire with fire extinguishers! There is a fixation on burning which just adds to the problem. Smoke from controlled burns causes air pollution health risks, so be careful to stay indoors and use air purifiers. Smoke air pollution is a leading cause of health related respiratory problems leading to other more severe health problems like lung cancer, strokes, increased risks of COVID and asthma. Smoke can travel over fifty miles and settle in valleys for up to a month during atmospheric inversions. Write to Williams Lake Chief Willie Sellars, the B C Forest Service and B C Wild fire Service and ask them to find other ways to deal with forest debris other than burning which will only create smoke, acid rain, increased CO2 emissions and health risks."

Cameron commented, "Stunningly reckless and negligent. I hope they're prepared to pay the medical bills that will result from it!" "they'll probably attach the "balanced against economic concerns" rubbish as well... it won't be a truly healthy-environment law, it will likely be another farce designed to try to relieve the pressure environmentalists put on MPs."

On the twenty first day, Carrie posted, "Our local air quality monitoring reading on their website states the air is "Excellent" today. I don't know when they update the information, but the air is far from excellent. I found this reading on the latest air quality data on a government website. It seems more accurate than the other readings. PM 2.5= 25 ug/m3 (micrograms per cubic meter), PM10 50 ug/m3 Ozone 3 62ppm, Nitrogen dioxide 60ppb, SO2 (sulphur dioxide) 70ppb, TRS (total reduced sulphur) 5ppb Our air quality is far from safe today so use caution outside and turn on your air purifiers inside. It is unhealthy for sensitive people living in this valley. It was way worse than the picture shows this morning."

An Australian commented "can you ask them how often they update near real-time data to the web? We are on 1 hour averaging but 10 minute near real-time reporting on the web. Anything less is useless"

Carrie replied, "it seems that on weekends when most of the burning occurs, nobody is monitoring up to date data. I have contacted them and been told they don't. Most of the smoke regionally is from the remaining wild fires west of us. But, that should not be added to by burning debris and wood stoves."

The Australian commented, "Sadly then, that AQ monitoring is useless. It should be reporting in near-real time automatically and reporting on ALL smoke. There shouldn't be a need for it to be reported manually, that went out with the ark."

On the twentieth day, Carrie posted, "Wood burning stoves, debris burning backyards, garbage burners at night, summer wild fires, prescribed burns, our air is rarely clean anymore. And the elementary school children play outside in it everyday during the Fall, Winter Spring months."

On the nineteenth day, Carrie posted, "Lower Nicola idiots burning yard waste this morning. Three large backyard fires have fouled the first clear morning we've had in months. The land fill is less than ten minutes up the road from here. With no regard for those living with health issues in this valley they go out and start a fire smoking up the whole neighborhood. When is this going to stop in our communities? When will this no longer be allowed near residents and schools? Smoke can travel over fifty miles and linger in a valley for weeks. Everyone in this valley is affected by these burns."

On the eighteenth day, Carrie posted, "Heat pumps can save money on home heating and keep you cool during summer heat waves. There are rebates through Clean B C Hydro programs. We switched from using baseboard electric heating to a heat pump with air conditioning, saving us money. The air conditioning is super efficient and comfortable. Mitsubishi offer a really good heat pump."

On the seventeenth day, Carrie posted, "In the USA over 46000 wild fires were human caused, and about 6500 were caused by lightening. About 6,596 wild fires in Canada last year were contributed to human activities. There is no NEED to burn anything while wood burning camping, clearing yard debris, using back country vehicles and smoking cigarettes, if people would stop and think. Provincial Parks should have burn bans in place at all times. Many with Multiple Chemical Sensitivities, Asthma, C O P D, and Emphysema cannot go camping because the air is thick with camp fire smoke. How is that connecting with nature, when people smoke up the lakes, valleys and forests and cause wild fires?"

On the sixteenth day, Carrie posted, "Anyone living in a valley where biomass plants are burning lives in a smoky haze every day. Air quality is being compromised for energy by these plants and people live with the results. They need to find real clean energy solutions that leaves the air clean and protects our forest and wild life."

On the fifteenth day, Carrie posted, "Air quality throughout B C is at dangerously high levels. Stay safe by reducing outdoor activities, using air purifiers indoors, also stay hydrated by drinking plenty of water. Avoid travelling into areas where the smoke is heavy by using the Air Quality Indexes of B C app on their website. Protect children, babies, seniors and those with illnesses. This is all the more reason to not burn wood stoves, yard waste and agriculture debris when wild fires are over. We NEED CLEAN AIR during those times to recuperate from all the summer wild fire smoke we experience every spring, summer and fall."

A woman British Columbian commented, "I hear you, I love winter time walks but the air is so smoky we often can't go outside. Right now will be limited as to what we can do because of wild fire smoke. Too bad you won't be able to come here to B C. There are so many places I wanted to visit in the world and will never do so. Because some like Ukraine, Russia, China, Middle East are just too dangerous now. But, I believe that in my next life on a new earth I will spend eternity visiting everywhere."

On the fourteenth day, Carrie noted that Creston and Nelson have the worst air quality in B.C. A meteorologist said "Vulnerable population should reduce or reschedule strenuous activities outdoors." "(Residents) should consider rescheduling or reschedule strenuous activities outdoors if you experience symptoms such as coughing and throat irritation." There was a change in winds. "This means all that smoke that was blown out, is now coming back in," "We are getting smoke from fires west and south including smoke from fires in Washington and Oregon, as well as smoke produced here in the Kootenays by fires at Briggs Creek, Monument Creek and Fry Creek. Across B C on Sept. 12 there were 191 wildfires actively burning: 66 in the southeast, 42 in the coastal area, 34 are around Prince George, 31 are in the Kamloops area, 12 are in the northwest and seven are in the Cariboo region."

Carrie posted about the B C firefighters, "And none are wearing anything to protect their lungs etc. But have hi vis and hard hats. Sad really. This will impact their health at some point in the future."

A third commenter from British Columbia posted, "I heard from a fire fighter that he had to quit his job due to a severely sore throat, sinus problems, and lung pain. Our young people are suffering from working in these conditions to save our homes. And still there are human caused fires."

On the thirteenth day, Carrie posted, "Battleship Mountain wild fire in north east British Columbia has grown to over 17,000 hectares. Brave men and women are working to protect structures, homes and farms. The loss of wild life must be immense. This fire was started over two weeks ago by lightening, it apparently was not human caused. But, the one near Hope B C which is now threatening homes was human caused. As were over 325 other wild fires, starting in May until today. As much as 22.5% of this year's fires were human caused. Ban camp fires all year in Provincial Parks, save our eco-systems."

On the twelfth day, Carrie posted, "People with disabilities bear the brunt of community air pollution. Some people with M C S have no choice but to leave their homes, drive out of the wood smoke and sit in their cars overnight in the cold, so they can breathe clean air. Those with C O P D have to block vents, use air purifiers and stay indoors when there are wood stoves burning near their homes. The examples of people with disabilities who are negatively affected by environmental pollution is endless. Time to consider others before burning anything."

On the eleventh day, Carrie posted, "Human caused wild fire near Hope B C has put residents of the area on high alert. They must be ready to leave their homes quickly, with only a few personal items of importance. The person who started this fire was probably doing so legally, since the fire bans were lifted only a few weeks ago. They probably never thought it would be them who would start a forest fire that would endanger fire fighters, air crew and residents. But it was, and I wonder if their wieners were worth all the risk of life and taxpayer dollars to control this fire. More than 22.5% or 325 of

the 1500 wild fires were human caused this year alone. That does not include last year where over 40% of the millions of hectares burned were caused by human activity. The smoke, cost, and environmental damages of the fire starters bad decision affects us all, and more need to be done to stop it."

On the tenth day, Carrie posted that Utah Physicians for a Healthy Environment wrote "The wildfire air pollution we all see, smell, and breathe, is directly related to the climate crisis and the record breaking heat and drought that has plagued the Western United States for most of this summer, and in fact for many years. Unfortunately, summer wildfires are becoming increasingly the norm, and summer air quality may become even worse than our notorious winter inversions. "Pollution from wildfires may look and feel much like our winter inversion pollution, and the health effects are certainly similar. But it may be even worse, because there is a higher concentration of damaging chemicals in wood smoke, and many of the particles are smaller, allowing them to be more easily inhaled, picked up by the blood stream, and delivered throughout the body, causing biologic stress wherever they end up. And that can be in the heart, brain, kidneys and even the placenta of a pregnant mother. "Virtually the entire long list of diseases we know are caused by smoking cigarettes, are either caused or exacerbated by air pollution, including: lung diseases of virtually every type, like chronic bronchitis, asthma, and pneumonia; heart diseases, including abnormal rhythms, and heart failure; blood vessel and clotting disorders that cause heart attacks and strokes; brain disorders, including acute and chronic memory and cognition impairment, Alzheimer's, and other neurologic disorders like Parkinson's and multiple sclerosis; pregnancy complications like premature birth, hypertension, and still births; chromosomal damage and impaired fetal development, like birth defects; cancer, including lung cancer, breast cancer, and childhood leukemia; decreased kidney function, endocrine disorders like type II diabetes, and arthritis. "The biologic and disease consequences can persist long after an air pollution event is over. For example, the pollution particles we are inhaling now, can still be embedded in any of our critical organs months later, and some may never leave. "The average person's life expectancy is shortened by their exposure to air pollution, even if they have no overt symptoms from it, or none of the diseases known to be caused by it. Just like there is no safe number of cigarettes a person can smoke, there is no safe level of air pollution a person can breathe. Hundreds of studies have shown that even the low levels of pollution present on a "good" air quality day, are still causing silent damage to our health and accelerating the aging process. "In the era of a pandemic we have even more reason to be concerned. Several studies have shown that air pollution significantly increases the risk of a poor or fatal outcome from the coronavirus. "Utah Physicians for a Healthy Environment advise that people take as many precautions as possible to protect themselves from this wildfire pollution. Stay indoors and use air purifiers to improve indoor air quality "Long term, look at how we make public policy, and support political leaders who take our air pollution problem and the climate crisis seriously, and want to make them better."

On the ninth day, Carrie posted, "Join Change the Air Foundation. Fighting for clean indoor air is not an option it is the necessity for life. Indoor air quality inside schools, work places, homes is often more polluted than outdoor air. When you have a smoke billowing chimney next door to you and smell smoke in your bedroom at night even with all the windows closed, there is a serious danger lurking in your home. Time to ban wood stoves and debris burning in all communities."

On the eighth day, Carrie posted, "All smoke is deadly to humans and animals. " Carrie quoted from an article she found: "The more we find out about smoke, the more we find out how toxic it is for humans", says a research chair for Predictive Services, Emergency Management and Fire Science. "The number of people that die prematurely due to wildfire smoke in Canada is about 2,500 people (per year) so this is not a trivial thing at all." "Wood smoke from any source in our communities is a serious health risk. Everyone who burns anything is contributing to this global crisis. Warming temperatures in the Arctic will cause melting tundra which will release methane gas and CO2 far more than is already in the atmosphere. Can we do anything, if we all work together at it maybe we can limit temperatures but they will still go up. We could work to mitigate and adapt to changes in climate but we should all be doing that now. The panic will come when the water resources, agriculture and clean air are gone forever."

On the seventh day, Carrie posted, " Norway likes to pose as a "green" country but makes most of its money peddling fossil fuels. The Arctic is warming four times faster than the rest of the world. More pressure must be put on Norway and other countries to be truly a green economy and stop peddling BS about clean energy while still burning coal or diesel."

On the sixth day, Carrie posted about an informative article in the Guardian, "How can someone certify wood smoke, where do they draw the line between an acceptable level of air pollution. What happens when many certified wood stoves are burning together in a Winter weather inversion. Day after day and night after night, building up in the air, lingering for weeks and months. With our Summers filled with smoke, Winter could be a chance to breathe cleaner air in our communities. Ban wood burning stoves."

An Australian commented, "Well they 'certify' wood heaters and you know how much of a failure that has turned out to be. Perhaps the certifiers need to be certified?"

Carrie replied, "looks like they are being paid off to look away."

The Australian commenter replied, "One could almost be excused for thinking that"

Carrie replied, "happens more than we think."

A fourth British Columbian commenter posted, "The polluters get a kick out of being positive backing up their lies and (blank) with words like Sustainable and eco-friendly, blah ,blah. Greenwashing!" and "How can you be positive with the truth about air pollution and the effects it has on us ,when DEFRA "certifies" pollution "

Carrie replied, "right, hard not to be pessimistic when they are ignoring facts, science, people, the environment. Any hope of them changing is fading fast. The good folks are always living with the effects of the bad people who don't care. So, searching for happiness is unrealistic in a world where bad people cause so much trouble. Just keeping the peace and making little changes, where one can, keeps me on track. If enough people do that, then big changes can out pace the damage done by bad people is my hope. Fingers crossed, of course."

On the fifth day, Carrie posted, "This is outdated but gives good information on smoke advisory and air quality in your area. Don't add to smoke by lighting camp fires or burning things." Carrie had reposted a warning from IQ Air: "Air pollution is the greatest environmental threat to life on Earth. Let's observe World Clean Air Day. Learn how you can join the fight and do your part to help the world breathe better!"

On the fourth day, Carrie posted, "During the month of August, there were 759 lightning-caused wildfires in B.C. Although temperatures will remain above seasonal through the long weekend, the frequency of lightning events is decreasing. As a result, there's a downward trend in new wildfire starts that is expected to continue into the fall. Read the full wildfire status update for September 1, here."

On the third day, Carrie posted, "Campfire bans have been lifted. The forests are still very dry and easily ignited. We do not need smoke from campfires in our parks, causing acidification of lake waters, algae blooms and dying fish. Say no to campfires in parks." And "just about everything is affected by the pollution. Now they have lifted the camp fire bans while the forests are still burning and we are living in a smoky haze."

Cameron replied, "staggeringly reckless."

Carrie replied, "yes, to even take a chance of starting another forest fire and risking our workers lives is reckless. There is no NEED for a camp fire when other cooking is available."

On the second day, Carrie posted "Wood fires are meant for caves, get on with it and get clean energy heating. Heat pumps keep you warm in Winter and cool in Summer. There are excellent rebate programs in place for clean energy in BC."

On September 1, 2022, Carrie posted, "Wood stove burning, backyard debris burning, agricultural burning, fire pits, campfires, human caused wild fires, industrial emissions, vehicle emissions all contribute to global warming and human suffering. Maybe the burner isn't suffering much now, but they are sure adding to suffering for others. Wood smoke air pollution causes unnecessary air pollution in our communities during times when we could have cleaner air. And critically affects the environment we all depend on to live a healthy life."