

Cowichan Regional Airshed Roundtable

Synopsis

February 29, 2024 Session

Attending:

Cindy Lise Our Cowichan- Facilitator, Nick Davey Ministry of Environment and Climate Change Strategy, Keith Lawrence CVRD, Katie Mosewich CVRD, Angela Eykelbosh Island Health, Shaun Chadburn Municipality of North Cowichan, Brandon Yau Island Health, Rachele Rondeau CVRD Transportation, Rob Harris CVRD Bylaw, James Van Hemert representing Town of Lake Cowichan, Brian Houle Catalyst, David Slade Mill Bay Fire Dept and community environmental initiatives, Donna Juan-Tapp Island Health, Dr Michael Benusic Island Health

Welcome to the Traditional Territory of the Cowichan People

Itst sq'up'ip u tuna' kweyul tun'ni'utu Quw'utsun Tumuhw. "We are gathered here on the Cowichan Lands"

'Uy' skweyul 'Uy kwun-us 'i lumnamu "Good Day. How are you"?

Simple Rules

The Cowichan Regional Airshed Roundtable is comprised of multiple partners from multiple organizations and sectors and as diverse as their organizations and reasons for coming to the table. Together we have created simple rules that guide us in our efforts.

- *Reaffirm trust.*
- *Be transparent*
- *Fail forward*
- *Respect for all members*
- *Create vitality, have fun, become the place to be*

Round Table Updates

Our Cowichan Communities Health Network- Cindy Lise

In the summer of 2023, Our Cowichan in collaboration with Island Health undertook a large regional health and wellbeing survey (Our Health Our Community Health and Wellness Survey). Included in the survey were questions relating to how people heat and cool their homes and whether or not they used wood burning appliances. Responses came from across the CVRD region and should give us more information to guide our efforts. The data from the survey is expected to be released in June of this year if not sooner.

Municipality of North Cowichan- Shaun Chadburn

- Continue to partner with Provincial government on Clean BC Better homes program. As of December 2023, 269 houses have switched over to heat pumps (large portion of these conversions are natural gas and oil). Conversations with the province have been underway and the Municipality of North Cowichan has been approached to extend this program for another year.
- Actively working with communications department to have social media presence during open burning windows (promoting proper burning practices and adherence to venting index)
- Continue to enforce our fire protection bylaw through our bylaw enforcement officers
- Getting new curbside waste collection vehicles in 2025 and will be accepting yard waste in addition to kitchen organics – hopefully that will reduce the amount of material people need to dispose of and reduce back yard burning
- Municipality adopted higher levels of Zero carbon energy step code in 2023
 - As of Jan 1, 2024 we require Emissions Level 3
 - As of July 2024, we will require Emissions Level 4 (although we have a backlog in building permits which may draw this out a little)
- Continue to Implement Climate Action and Energy Plan
- Working on several policy and planning exercises:
 - Biodiversity Protection Policy
 - Natural Asset Management
 - Climate Change Adaptation Strategy

***Discussion:** Regarding free fire smart inspections of North Cowichan properties, it appears the CVRD's emergency management function is managing this for the CVRD and I believe that's a regional function so that should enable our residents to receive this as well.*

CVRD Transportation- Rachelle Rondeau

There have been changes to the transit program in September of 2023 due to the decrease in ridership on the Victoria Commuter Service. (Likely a result of more people working remotely). Services are provided Monday, Tuesday, Wednesday, Thursday, Friday and Saturday. Due to the change in ridership, they have been able to shift the bus leaving Duncan to 9:23 which provides a service for users other than those commuting to work. This bus also has an earlier return in the day leaving Victoria at 1:45.

The Nanaimo route has no expansions for funding but are hoping for more funding to allow for future expansion.

The CVRD is also working on a report for the electric vehicle charging stations regarding low carbon fuel regulations. Everything dispensed at those locations indicate how many carbon credits we receive.

***Discussion:** Working with community organizations who are seeking transportation how are we able to increase the awareness that the later bus to Victoria is an option beyond the regular commuters?*

Catalyst- Brian Houle

It has been a busy time regarding air quality monitoring at Catalyst. There have been openings and closings of the two mills (the pulp and paper) with the shut down of the paper side in 2022 and now the announcement of its indefinite curtailment. Currently the pulp mill is in the first week of a two-week curtailment of ½ of the kraft mill.

Catalyst undertook received a new air permit in November with a strong focus on air quality. February 21st was the first deliverable on a Sulphur Dioxide surveillance program that is guided to be provided by the new air permit. Also, in response to issues with setup of meteorological stations across the province, concern for this data has caused province to specify specific quality assurance steps to ensure the data is accurate.

The new air permit also guides the use of electronic log books at the ambient air monitoring stations that the mill operates and the province obtains data from. This more focused attention on air quality will include the engagement of qualified professionals to assist the mill.

The craft pulp mill has an environmental boiler emission control system with a stronger focus on air quality.

***Discussion:** Does the mill still have the same impact on water use considering the summer droughts? With the paper mill indefinitely curtailed, Catalyst has reduced water use by 7000 US gallons per minute and this change only impacts the bottom 20% of the Cowichan River, below the water pump house, where the water the mill does not use continues to flow through the lower river and to the ocean.*

Mill Bay Fire Dept- David Slade

David also supports local initiatives such as Rails and Trails, Carbon Busters and the Cowichan Climate Hub. David is pleased to report that the focus has moved away from house and chimney fires as they are becoming less prevalent, but now is focused on wildfires and wildfire interface. There are many locations in the Mill Bay area that are extremely vulnerable to wild fires. A lot has changed as 10 years ago wild fires were not on the radar and now it is important to be fire proofing your own home and properties.

As such, the CVRD Emergency Services Division has been supporting community members in getting a “Fire Smart” property assessment done. Anyone with concerns regarding fire safety/wildfire mitigation can call the CVRD for an assessment. This extends to the Municipality of North Cowichan and other CVRD Communities.

CVRD Bylaw- Rob Harris

Data for the last two years regarding bylaw responses to open burning/smoke control includes the following:

- 2023 the CVRD attended 42 calls regarding backyard burning. \$2,251.00 in fines were associated with the calls. The CVRD Bylaw always takes an educational first approach and fines are usually only issued with repeat offences.
- 2022 in comparison had 37 calls with \$2750.00 in fines issued.

It is believed that calls were up in 2023 due to increased awareness as more people are aware of the venting regulations and burning windows. CVRD Bylaw is also taking a more proactive approach and will engage with property owners who do not align with the bylaw and will take a more curious approach with them to inform them about smoke, burning days and venting conditions.

There is a meeting today with bylaw from member municipalities (Municipality of North Cowichan), in an effort to align bylaws and potentially open a few more burning days as it has been determined that some of the impact is coming from people burning even when venting is poor due to the limited number of days allowed to burn. Increasing the number of days to allow for options on good venting times may have a more positive impact.

The planning department applied for wildfire developmental permit areas as a process to reduce the hazard via property assessment. (More clarification regarding this from Rob as follows).

- The CVRD has created Development Permit Areas (DPA's) which regulate land use and proposed development. CVRD applied mapping of areas susceptible to catastrophic events such as wildfires. The Wildfire Hazard DPA (WHDDPA) requires planning that minimizes risks and mitigates impacts of such events. If a property owner intends to develop property or alter land, and is within the Wildfire Hazard DPA, they must score their property as it relates to wildfire hazard susceptibility. The Cowichan Regional Fire Smart Resiliency Program is designed to help homeowners and communities reduce the risk of wildfire damage. Wildfires are a natural occurrence, but they can also be devastating to homes, businesses, and communities. In recent years, the frequency and intensity of wildfires have increased, making it more important than ever to take steps to protect ourselves and our properties. WHDDPA reduces wildfire risks by implementing development strategies such as using fire resistant building materials, building designs and careful vegetation management near structures.

Rob would like to extend his gratitude to all of the firefighters for keeping the valley safe!

Airshed Roundtable and Strategy Refresher – Keith Lawrence

Why the Airshed Strategy? Our greatest concern for health in our region is linked to the contaminate and fine particulate matter called PM 2.5. The main contributors of PM 2.5 are open burning and woodstoves which has been our area of focus to this point. Poor air quality is complicated by the fact that there are multiple authorities with different jurisdictions relating to air quality. Through the roundtable we are working collectively to address the issues.

In 2009 the Corporate Strategic Plan was to develop an airshed protection strategy. This would be supported by data captured at the air monitoring stations.

- 1986 The first air quality station was opened Crofton Sub Station
- 1994 Crofton Escarpment Way

- 1998 Duncan Daykin Avenue
- 2009 Duncan Cairnsmore
- Now- PM 2.5 monitoring network or Purple Air Monitors across the region which are linked to the CVRD website as it relates to certain conditions

Our Vision

Working together for clean air to support our health, our environment and our communities

Our Goals:

1. Protecting human health
 - a. Reducing PM 2.5 from open burning and wood burning appliances
 - b. Implementing regulatory tools and increasing education on the impacts of woodburning
 - i. Updated Actions**
 - ii. Raise public awareness for impacts and best practices
 - iii. Develop consistent regulatory approaches for open burning
 - iv. Explore options for curbside pick up of yard materials
 - v. Develop consistent regulatory approach for woodstoves
 - vi. Enhance incentive programs for the replacement of woodstoves to other primary sources of heating
2. Building strong collaborative partnerships
 - a. More partners and members are welcome and play a critical role in the success of the airshed strategy
 - i. Updated Actions**
 - ii. Collaboration via the Airshed Protection Roundtable
 - iii. Develop work plans
 - iv. Periodic reporting on monitoring
 - v. Develop linkages to climate change, transportation, wildfire and solid waste planning

The Cowichan Regional Airshed Strategy, communications and Engagement Road Map highlights the journey to date and the planned approach for behaviour change as we move forward. All documents can be found on the CVRD website www.cvr.caAirshed-Protection

What do our climate projections tell us?

- We will have more extremes including:
 - More intense rain storms
 - Fewer frost days
 - **Summers will get hotter – heat domes-wildfires-energy consumption and health impacts**
 - Summers will be drier and winters will be wetter

Some of our highlights from prior actions

- Saltair backyard burning bylaw

- Developing burning bylaw matrix
- Burning Emissions Study- In progress
- Refocussing on Woodstove Exchange Program
- Establishing PM 2.5 sensor network
- CVRD voted Clean Air Champion in 2017 by BC Lung Association
- Funding granted by the Ministry of Environment for the coordination of the roundtable, education and outreach
- Developing a communications and engagement roadmap

Woodstove Exchange Program- Katie Mosewich

- Total rebates to date- 1242
- The uptake of rebates decreased during the pandemic but the amounts of rebates from 2022 to 2023 more than doubled with 16 being issued in November just prior to cut off date. Incentives have increased in savings to the consumer and now include a bounty program if the home owner turns in a non -EPA woodstove for a reward
 - 2023 rebates
 - 49 in total
 - 23 wood to wood
 - 22 wood to alternate heating source

Homeowners can now collect:

- \$ 550 for wood to 2020 EPA certified stove
- \$ 1050 for Wood to Pellet Stove
- \$2350 for Wood to Heat Pump
- \$ 300 for bounty program for turn in of non -EPA stove

Further discussion has been to allow keeping a woodstove for emergency purposes while using another heating source as the main means for heating the home.

***Discussion:** Roundtable partners can play an important role in the dissemination of information regarding the rebate program.*

Air Quality Summary – Nick Davey Ministry of Environment and Climate Change Strategy

Synopsis of latest reporting and numbers from air zone management

All provinces report on their progress- good news is we are far below Canadian emissions standards we are now in orange to yellow zone but still require actions to meet the air quality standards. Wild fire smoke Cowichan is part of the Georgia Straight. When one community experiences an exceedance, we are included with them.

- As has been articulated throughout the Airshed Roundtable process there is a clear link to PM_{2.5} and health effects including premature death
- We have seen the influence in open burning bylaws that have resulted in decreasing trends in autumn/winter.
- Concentrations remain highest at night and on weekends particularly in the colder season as a result of wood burning appliances
- Wild fires are more intense and increase exposure to PM_{2.5} for longer periods of time in a year. In particular 2018 and 2020 were significant. Wildfire smoke in recent years has played the most significant role in our air pollution.
- The Cowichan regions still has high levels of PM_{2.5} in fall and winter but those are now getting less than before- trending downward which is great news
- Good news is that we have seen overall improvement with annual mean numbers falling below the air quality objectives
- The number of exceedances is also decreasing
- Ozone readings are still meeting Canadian ambient air quality standards and we continue to fall below- The number of exceedances is decreasing over time. When there are exceedances, they are often a result of wildfire smoke. We continue to see cyclical increases in the colder months in the evenings and early mornings as a result of wood heating and traffic.
- There are relatively lower concentrations mid week.
- There are now a number of purple air monitors active within our region. Data can be accessed by logging into CVRD or the Purple air website. The purple air monitors although not as accurate as the monitoring stations provide the public with good information on the air quality in their area at any given time.
- There is good news for ozone in that there are no objective exceedances in hourly concentrations and we are well below the limits.
- Looking forward there will be the ability to have an update in the venting index from Environment Canada that will be changing to a kilometre's grid that is smaller and more related to the topography in an area. (mountains, valleys and open areas can change the index within a few kilometers). This new system will take some time to implement but once complete will provide a more accurate reading.

Discussion: *There is a concern that the snow pack is at 0-50% of the norm and that 2024 could be another dry summer with significant risk for disastrous wildfires. In 2023 there were 2,245 wildfires with 2,840,545 hectares burned in BC in comparison to 1,625 wildfires in 2022 with 869,270 hectares burned.*

Island Health- Angela Eykelbosh -Health as linked to Quality Air Index

Who is at the greatest risk for wildfire smoke?

- Older adults, infants, children and pregnant people
- Resulting in increased poor health outcomes for people presenting with asthma and COPD along with exacerbations in respiratory disease, cardio vascular disease and other chronic diseases
- People with chronic disease such as kidney disease, cancer or poor mental health may also be impacted

- In South, Central and Cowichan Valley West, the annual incidence of asthma is markedly higher than the rest of Island Health and even higher when compared to the rest of BC
- Similarly, the annual incidence of COPD is higher in the Cowichan region compared to the rest of Vancouver Island and BC
- Overall, though, we are seeing a decrease in the incidence of asthma from 20 years ago. COPD is also currently trending downward over time. With that said, with the increase in older adults in the region we can anticipate an increase in COPD
- How are we tracking smoke impacts?
 - Administrative data from emergency visits, doctor's visits and dispensations of asthma inhalers dispensed from local pharmacies
 - There is a direct correlation between poor air quality and an increase in medical supports and prescriptions as demonstrated from the BC Asthma protection system or BCAPS. (see attached slides)
 - It is important to note that there is a noted difference on dispensation of medications between summer wildfires and winter which is likely associated with the number of people being active outdoors at that time.
- It is important to have sensors where the people in the area and the important initiatives like PM_{2.5} community sensing networks to make sure that people are getting information relevant to their location.

Five Pillars to Preparing for Wildfire Smoke

1. Maintain air quality awareness via the BC Air Quality Map, Firesmoke.ca or your community PM_{2.5} sensor network. Get to know the AQHI and how to use it.
2. Create a smoke health plan with your doctor and stock up on medications (5+ days), for heart and lung disease
3. Use filters and air cleaners: consult with your HVAC professional on MERV-13 filters, purchase a HEPA air cleaner, or build your own using the BCCDC Do it Yourself Air Cleaners Fact Sheet
4. Know how to use a respirator safely and keep a few on hand. Check out the BCCDC Respiratory Protection for Wildfire Smoke Fact Sheet
5. Use generators safely; do NOT use generators indoors if there is a public safety power shut off

Discussion:

- *Further discussion with the CVRD regarding DIY Air Cleaner workshops*
- *Air Quality resource inventory (coming with the minutes)*

Island Health Donna Juan Tapp -COPD Initiative

The Cowichan Health and Care Plan has worked to identify population health care needs and resource allocation to support clients in the community while reducing the utilization of acute care services in the Cowichan District Hospital. The goal is to care for people better in the community and to have the hospital provide services for the most needing in the region. The impact of the COPD Initiative identified within the Cowichan Health and Care Plan has been astounding and has removed COPD from being in the top 5 categories for people seeking care in the Cowichan District Hospital.

Background

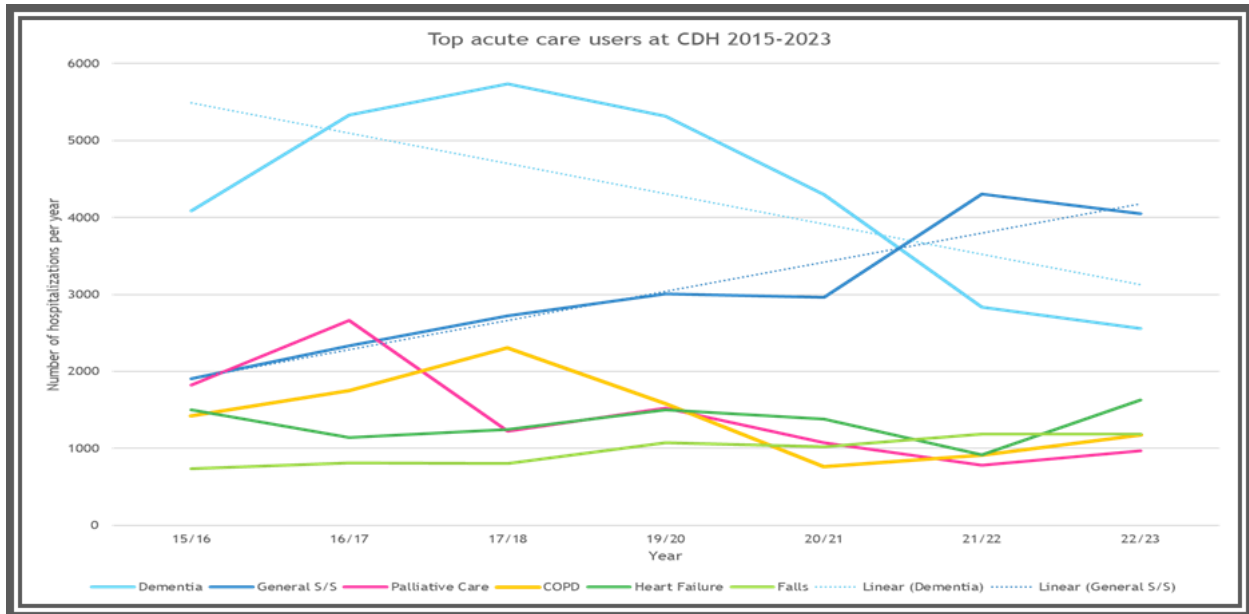
- Cowichan has the highest incidence of COPD in BC
- COPD is one of the top reasons for admission to CDH
- The Cowichan population growth is expected to exceed 250% for the 75+ age group
- There will be an increased need for COPD care
- Clients are lacking resources for self management of the condition

A New Model of Care

Cowichan has adopted the INSPIRE model of COPD care from Dalhousie University. This includes a multidisciplinary team approach to COPD care which has been integrated into the Cowichan Community Home Support Team. Currently there are 650 clients who are receiving in person education, support groups and care at home. The program has shown incredible success in reducing the number of people being admitted to the hospital as they have been able to do home monitoring and put preventative actions into place before a crisis occurs.

With wildfire smoke and the increasing numbers of seniors this initiative will play an important role in keeping people healthy and out of the hospital in our region.

- The yellow line indicates the number of people accessing the Cowichan District hospital for COPD. You can see that it has reduced dramatically and is no longer in the top five reasons for admissions.



Communications and Planning

The Cowichan Regional Airshed Strategy is provided funding to undertake the work of the roundtable as well as to support the facilitation and coordination which is currently being provided by Our Cowichan Communities Health Network. The total amount is \$5,000.00. This leaves us with some funding to support initiatives or communications relating to our efforts such as:

- (postcards attached to documents) Postcards for information sharing on
 - What is PM_{2.5} and why is burning resulting in health concerns
 - Burn Less- Burn Better
 - Air Quality Sensors and how to access information

These resources are already designed so the question is whether or not we would like to find ways to continue to fan them out across the region? How do we envision this? Are these resources adequate or do they require changes?

Is there new messaging that we would like to see released? YES there is a desire to present messaging on Smoke and Heat.

How to share information?

- Postcards
- Websites
- Facebook
- Newspapers
- Others such as local magazines etc

What are the costs associated with our desires?

What are our priorities?

When do we see campaigns getting underway?

How can we use our network as key contributors to the sharing of information via websites, staff, clients etc?

***Discussion:** Cindy to set up a leadership call to host a meeting specifically focussed on the funds available and the campaigns or information to be distributed. This will require some planning and time to put actions into place. A call to the members who were not in attendance today will also be sent out should there be others who would like to contribute to the planning.*

Dialogue

BC Building Requirements- With increased heat domes and longer periods of heat cooling requirements might be considered into the BC Building requirements which in the long term will also have an impact on woodburning and PM_{2.5} in communities.

NEXT MEETING- to be determined

Additional Resources

- CVRD Airshed Protection site <https://www.cvr.ca/2180/Airshed-Protection>
- Our Cowichan Communities Health Profile www.ourcchn.ca
- Videos can be found at the links below:
 - <https://www.facebook.com/mycvrd/videos/backyard-burning-and-venting-index/187009066052759/> What is the Venting Index?
 - <https://www.youtube.com/watch?v=sOxtX9g6hZc&list=PL0osiz6D4yhgvNWedk9oxTCQ87g7i5jPH&index=11> Healthier Home Heating
 - https://youtu.be/ta-4_RDhvJw Wood Smoke and Your Health
 - <https://youtu.be/MF-egVYixwE> Burning Clean: It Starts with the Wood
 - https://youtu.be/pwt4fVKiC_U Wood Smoke: Tips for a Cleaner Burn