

Report to Governance & Services Committee

Date: May 13, 2021

To: Brian Reardon

From: Nancy Mora Castro, Regional Air Quality Program Coordinator

Subject: Air Quality program update

Department: Integrated Transportation Department, City of Kelowna



Recommendation:

THAT the RDCO Governance & Services Committee receive, for information, the Air Quality Program update regarding the air quality results, ongoing programs, projects and pending proposals.

AND THAT the RDCO Governance & Services Committee directs air quality staff to bring forward, at a later time, the Strategies to reduce PM_{2.5} and a Bylaw 773 update for their consideration.

Purpose:

To update the Governance & Services Committee on the Clean Air Strategies results, ongoing projects and the potential for updating Bylaw 773.

Background:

Regular, ongoing updates of the regional Air Quality function are provided to the Governance and Services Committee of the RDCO for their information and approval. Activities undertaken by the Air Quality function from 2007 – 2015 were guided by the Regional Air Quality Management Plan, then from 2015 to current via the Regional Clean Air Strategy. Program changes are authorized by the RDCO Board based on recommendations from the Governance and Services Committee and other internal sources. An overview of air quality results (2015-2021) is now being presented to the RDCO Governance & Services Committee leading to the presentation of the "Strategies to reduce PM_{2.5}" later this year.

Discussion:

The Regional Air Quality Program is a joint initiative of the City of Kelowna, Regional District of Central Okanagan, District of Peachland, City of West Kelowna, Westbank First Nation and the District of Lake Country. Since 1999, the Air Quality Program helps protect and improve the region's air through education, awareness, and pollution prevention programs. The air quality in the Central Okanagan is generally good and is usually below the BC guidelines and objectives and the Canada Wide Standards. However, recent studies state 80% of the health effects are due to long-term exposure of outdoor air pollutants¹. In the region, the main pollutants of concern are PM_{2.5} and ground-level ozone.

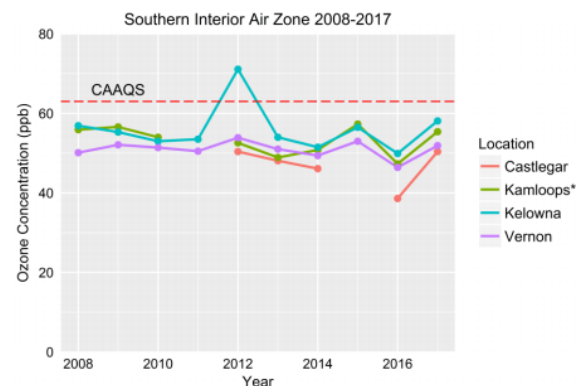


Figure 1. Trends in ozone concentrations (2008-2017), based on annual 4th highest daily 8-hour maxima for a single year. Red dashed line identifies CAAQS of 63 ppb. Asterisk (*) flags combined dataset from multiple sites in Kamloops

¹ [southern_interior_air_zone_report_2015-2017.pdf \(gov.bc.ca\)](https://www.gov.bc.ca/southern_interior_air_zone_report_2015-2017.pdf)

According to the latest air report², ozone concentrations have remained below the level of the national standard throughout this period (2008-2017), with the exception of 2012 in Kelowna, when wildfire smoke led to higher ozone concentrations. In regards to particulate matter, all monitoring sites in Figure 2 achieved the annual concentrations for the national standard of 10 µg/m³ (2015-2017), with the exception of Kamloops. For daily concentrations (24hr PM_{2.5}) other communities that exceeded the national standard of 28 µg/m³ included Lavington, Vernon, Kelowna and Golden. Wildfire smoke is believed to have been a major factor in the elevated PM_{2.5} levels.

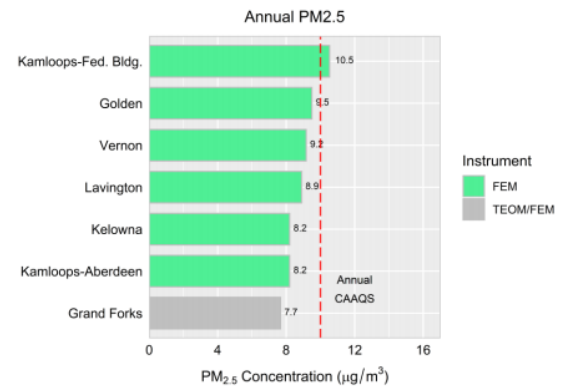


Figure 2. PM_{2.5} concentrations in Southern Interior Air Zone, based on annual mean concentration (averaged over 2015-2017). Red dashed lines identify CAAQS of 10 µg/m³.

The summers of 2015 and 2017 were characterized by hot, dry conditions and an above average number of hectares burned compared to 2016. These fires created smoky conditions and periods of degraded air quality in several communities across the air zone.

- The Southern Interior Air Zone is assigned a “yellow” management level based on ozone concentrations in Kamloops and Kelowna. This indicates that ozone-related actions should focus on preventing further air quality deterioration.
- The Southern Interior Air Zone is assigned an “orange” management level, based largely on annual concentrations across the region. This indicates that PM_{2.5}-related activities would be appropriate to prevent future CAAQS exceedances.

The health benefits of reducing air pollution can be measured in terms of premature deaths prevented. Health Canada, in collaboration with Environment and Climate Change Canada, updated estimates of the health impacts of air pollution. Using the Air Quality Benefits Assessment Tool, they estimate that 1,600 premature deaths in B.C. in the year 2015 can be linked to air pollution (i.e. fine particulate matter, nitrogen dioxide and ozone) from all sources, with an economic valuation of \$11.5 billion per year.³ Nationally, the health burden of air pollution was estimated at 14,600 premature deaths, 2.7 million asthma symptom days, and 35 million acute respiratory symptom days, with a total economic valuation equal to \$114 billion per year.

The [Clean Air Strategy](#) was updated in 2015 and was approved in principle by the RDCO Governance & Services Committee and Board. Staff was directed to present specific programs and actions on an ongoing basis to the RDCO Governance & Services Committee for their consideration and referral to the RDCO Board. As part of these strategies, a Central Okanagan Air Quality Technical Committee was integrated in 2015; this is a working group of air quality experts from federal, provincial and local agencies that has been working on the strategies to improve local air quality in the region. The air quality technical committee has identified several opportunities to improve air quality conditions, e.g. new regulations on open burning, campfires, dust, wood appliances, radon and vehicles emissions. The expectation is that with an updated bylaw implementation that supports pollutant reduction from the main sources and a successful educational campaign, behavioral changes will happen over time and improve our local air quality.

² [southern_interior_air_zone_report_2014-2016_final.pdf\(gov.bc.ca\)](#)

³ [BC State of the Air Report-2020](#)

Recent wildfires and the community lockdowns due to Coronavirus disease (COVID-19) in 2020-2021, have exacerbated the air quality complaints and the requests from concerned residents to take further steps to improve outdoor and indoor air quality; air quality complaints increased 104% in 2020. The recently released State of the Air Quality Report 2020⁴, states “from a public health perspective, a more immediate and important consideration is the interaction between air pollution and COVID-19 disease severity. Long before the pandemic began, it was understood that air pollution worsened respiratory infections. For example, in 2017 air pollution in Canada was estimated to be responsible for roughly 5% of the 9,000 deaths from pneumonia. In the SARS-1 outbreak in 2003, areas with higher air pollution had double the number of deaths. Air pollution doesn’t cause these infections nor does it play a major role in transmission, although it can increase coughing which may help spread the virus. More importantly, air pollution affects sensitivity to COVID-19 by degrading our immune response”. **The strategies to reduce PM_{2.5} will be presented later this year to the RDCO Governance & Services Committee for their consideration.**

Some air quality programs have been in place since 2001 and other programs/projects have been implemented more recently. The following sections contain the latest air quality program results:

Results:

Agricultural Chipping Program

Since 2004 the RDCO has offered a free program for orchardists who choose to chip wood waste into mulch as an alternative to burning it. An average of 59 orchardists register to the program each year. The agricultural chipping program is provided to approximately 27 property owners/year. This program is available for residents with properties 1ha+ and with large volume of wood, e.g. orchard removal. The annual budget for this program is \$80,000.

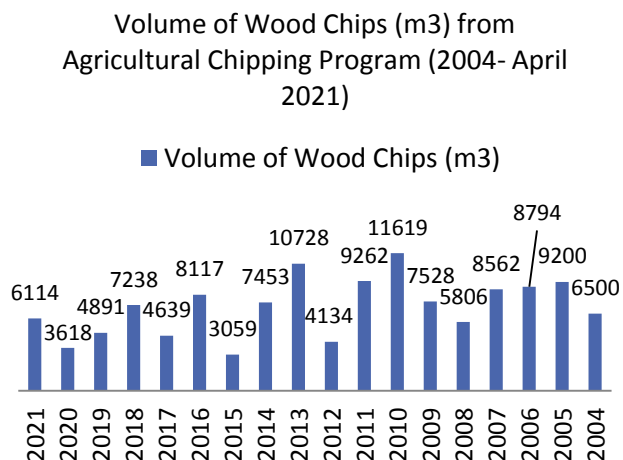
Since 2018, 20,000 have been redirected to the alternative Mow Chip Rent it program, but any remaining budget is used by the end of the year. The chipping costs and the demand (registrations/year) had increased over the years.

In 2021, the RDCO Board approved an additional ongoing \$40,000 budget. This 50% increase in the chipping budget will put to good use in the following ways:

- 1) cover current demand which is oversubscribed on an annual basis;
- 2) used to supplement new alternatives to traditional agricultural chipping model e.g., Mow/Chip/ Rent it Program;
- 3) used to develop and support other innovative ways to reduce agricultural waste burning.

Mow/Chip/Rent it Program

With the collaboration of all fire Departments and the BC Fruit Growers’ Association, a survey was available to all open burning applicants during October 13- Nov 19, 2017. We received input from those who obtain burning permits to help shape investments in programs and alternative options that prevent local air pollution.



⁴ [State Of The Air 2020.pdf \(lung.ca\)](#)

As a result, in 2018 a new Mow/Chip/Rent it Program was implemented to provide chipping services to farmers and residents with small volume of wood waste that cannot be accommodated through the Free Agricultural Chipping Program.

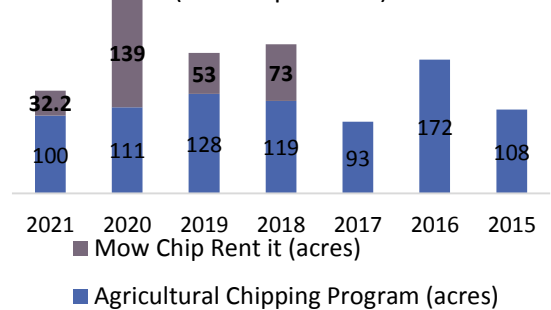
Rebate money is limited to **80%** of the daily/multi-day/weekly/rental or chipping/flail mow service cost up to a **Max of \$500** rebate per applicant/property. Qualifying participants require a property size 1 ha or greater within the Central Okanagan. With the same agricultural chipping budget, we now clear more acres through both alternatives to burning.

Burning Best Practices

- As part of the ongoing air quality educational campaigns, two new brochures, “Open Burning Best Practices” and “Mow it Chip it Get rid of it” were designed with the support and input of all Fire Chiefs. The brochures were produced and uploaded to the RDCO website and hardcopies were provided to our chipping contractor and to all Fire Departments in the Fall 2020.
- Since 2011, the City of Kelowna hosted an online Venting Index tool in their website, so residents can verify air quality conditions during the burning season. In 2020, due to technical issues this online tool needed to be redeveloped and relocated to the RDCO domain. Early 2021, with the support of RDCO GIS staff the online [“Current open burning Conditions”](#) tool was successfully developed and relocated. This tool is now available on the RDCO website.
- On June 10, 2016, Ministry of Environment staff presented the new open burning smoke control regulation proposal during one of the Air Quality Technical Committee meetings. The committee provided its input for this provincial regulation. After over 10 years of public engagement and stakeholder consultations, on September 19 2019, a new [Provincial Open Burning Smoke Control Regulation](#) was approved. This regulation will protect British Columbia's air quality and people's health by reducing fine particulate matter pollution. The regulation divides the province in [high smoke sensitivity](#), medium and low zones. The Central Okanagan Region is within the “High Sensitivity Zone” and many new requirements apply. Before lighting any open burn pile, in addition to any local fire permit and bylaws, eligible property owners are also responsible to ensure compliance with this new BC regulation.

The RDCO website was updated with the new provincial regulation information and provided factsheets. A meeting with all Fire Departments Chiefs took place to provide information on the new provincial changes.

Total number of acres cleared through Alternatives to Burning (2015- April 2021)



As of Wednesday 28 April 2021 5AM (PDT)

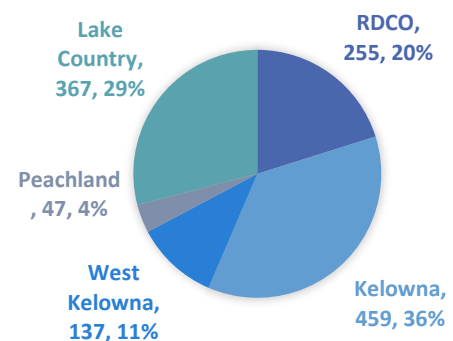
Burning is permitted after 10 am

Venting Index: 68
PM_{2.5} (24hr): 1.3 µg/m³

[Venting Index](#) must be greater than 65 and [PM_{2.5} \(24hr\)](#) must be less than 15

Open burning requires a valid permit.
[Open Burning Best Practices brochure](#)
[Agricultural Waste Disposal- Best Practices Guide](#)

Burning Permits issued-Central Okanagan (Average 2015-2020)

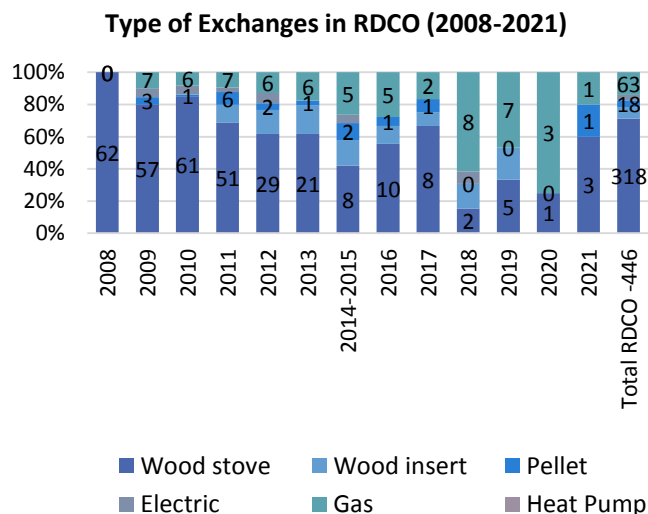


Also, with the support of GIS staff a setback [map](#) was created, as an educational tool, so residents can make an informed decision when applying for a burning permit. This map is ready to be shared and to be uploaded to the RDCO website.

The burning permits issued in the region have a downward trend. A 51% reduction from 2010 is observed and more recently with the provincial smoke regulation update in 2019, a 10% reduction was observed by 2020. Still, in the Central Okanagan 1,266 open burning permits are issued (average/year). Promotion of the alternatives to burning and possible bylaw 773 updates, could lead to further reductions.

Woodstove Exchange Program (WSEP)

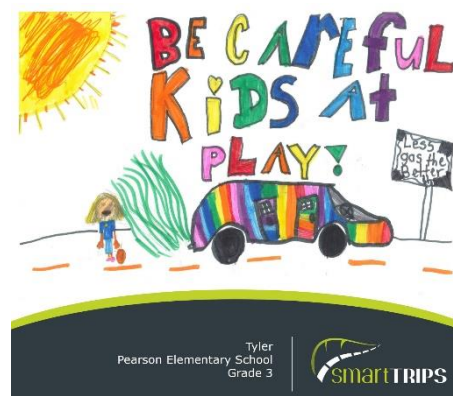
Since 2001 through precursor initiatives of the actual Woodstove Exchange Program, 746 **old woodstoves** have been exchanged in the region avoiding 49 tonnes of particulate matter getting into the local airshed every year. Through this provincial program the RDCO has received more than \$ 200,000 in funding to provide \$250 per rebate, advertisement and education. As of September 15, 2017, the incentive levels changed to \$400 for cleaner models like pellets, natural gas or electric devices and continued the same incentive level of \$250 for certified wood appliances. Educational materials and Wood Heating Workshops have been delivered every year in the region to communicate residents of their options and reduce the health risks associated with the woodstove emissions. Participation to the workshops was very limited (average of 12 participants in recent years). In 2020, instead of a workshop, a new online [Burn it Smart](#) tool and a new [Woodstove Troubleshooting Guide](#) were created to help residents burn responsibly.



Collaboration with 6 to 7 participant retailers/year is ongoing. The air quality program provides posters, handouts and tracking forms to each participant retailer at the beginning of each year. The program is also advertised in the [Living Greener Calendar](#) (February month) each year. This reaches more than 23, 000 residents in the region.

Clean Air and Safe Routes 4 Schools

In collaboration with all partners in the region, we have implemented the [Clean Air & Safe Routes 4 Schools](#) program at several elementary schools to increase participation in active transportation, reduce the number of motorized vehicles used for travel to and from school and reduce school emissions. School Travel Planning involves collaborative work with multiple stakeholders to produce a plan that addresses safety concerns and necessary infrastructure improvements. The Regional Air Quality Coordinator helps facilitate the development and implementation of the program and assists with coordinating the Municipal Steering Committees through the region. One municipal committee should be formed for each partner. The committees are made up of numerous stakeholders that assist in the planning process, including several municipal departments, Interior Health, RCMP and School District 23.



For each participating school, a School Committee should be formed with school representatives and parents. By engaging various partners, the program creates a greater sense of community, add broader implications for schools and neighborhoods in adopting active transportation habits and improved air quality.

The implementation process can take up to 18 months. The 5-year plan is created and signed by both committees. The Follow up document is done when substantial work has been completed; it varies from school to school. School programming, like safety talks, cleaner air program, walking competitions, an art contest, walking school bus, could be part of the action plan. Also, minor and major infrastructure improvements around the schools are considered.



The participant schools until April 2021 are seven: George Pringle, Raymer and Peason had completed substantial work and a follow up report has been finalized. Davidson, Belgo, South Kelowna and Casorso are working on the action plan activities.

Radon Awareness (2020-2022)

In 2018, new Information about indoor pollutants was uploaded to the RDCO air quality page as part of the Clean Air Strategy actions. One pollutant of interest is radon. [Radon gas](#) is the second leading cause of lung cancer after smoking. Radon is a naturally occurring gas found in the ground throughout the world. Most buildings will contain some amount of radon gas but the only way to know if levels are high is to conduct a radon test. According the [Health Canada Radon Map](#), the **percentage** of homes in the Okanagan with high levels of radon is **16.1**. The [C-NRPP Radon Database and Map](#) shows radon levels in the region by postal code. Health Canada recommends efforts should be taken to get radon to as far below the Canadian Guideline of 200 Bq/m³. To determine radon levels, **buildings should be tested**. Most buildings can reduce the radon to levels well below the guideline at reasonable costs.

In January 2020, the Air Quality Program applied to the [100 Radon Test Kit Challenge](#) and was awarded **400 free radon kits** which were distributed in the Fall 2020. [Take Action on Radon](#) is a national initiative, funded by Health Canada, to bring together radon stakeholders and raise awareness on radon across Canada. [The Healthy Indoor Environments program](#) (HIE) at the [British Columbia Lung Association](#) works to advance education, awareness and law and policy reform to address radon. As part of its Community Testing Project, HIE is collaborating with Take Action on Radon on this project. HIE contributed **1000 additional test kits** as part of ensuring residents of the Central Okanagan can know radon prevalence in their communities. Funding for this project has been made possible by the Vancouver Foundation.



With the support of the aforementioned associations and all local governments, **1200+ radon detectors were delivered for FREE to Central Okanagan residents in 2020**. Residents will be receiving their radon levels results by April- May 2021. Community results will be shared once all the information is analyzed by Take Action on Radon.

Also, in September 2020, the Air Quality program successfully applied and received \$20,200 in funding from Health Canada for a Radon Outreach Project. The project's goal is: Through initiating screening of radon levels on selected schools in the Central Okanagan, school operators will learn how easy it is to test for radon, get radon on their agenda, mitigate where necessary to lower radon exposure to children and staff, and through an online campaign raise radon awareness region-wide.

This is a collaborative project with SD23, Interior Health, CARST and Health Canada. With the stakeholders support **55 elementary schools will be screened** for radon in 2020-2022. The results so far are as follows:

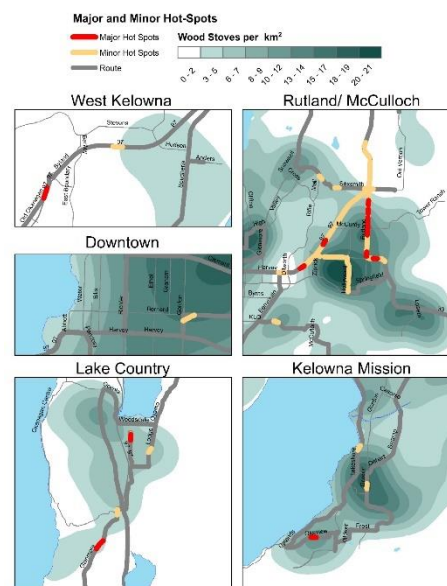
School type	Number of schools 2020	Detectors deployed	Detectors lost	Percentage of detectors sent to laboratory	Average testing time (days)
Public	23	296	7	98%	105
Independent	8	95	6	94%	101
Total schools screened Dec 2020-April 2021	31	391	13		

A community Radon campaign, a webinar and limited amount of radon detectors (100) will be delivered for FREE in the Fall 2021. School radon screening will resume in December 2021 on the remaining participant public and independent schools.

PM_{2.5} Study (2015-2016)

Research indicates that specific neighbourhoods in the region may reach unhealthy air quality levels due to woodstoves and proximity to major roads. In 2015, a study was designed to identify possible hot spots of particulate matter (PM_{2.5}) in the region. The Air Quality Coordinator applied for funding in 2014 to BC Clear Air Research Fund and as project manager integrated a group of stakeholders from Ministry of the Environment, Environment Canada, University of British Columbia-Okanagan Campus, University of Northern British Columbia and a few university co-op students. The estimated total cost of the study was more than \$111,000, including in-kind contributions from all partners. BC Clear Air Research Fund provided \$15,000 during 2016-2017 and the RDCO contributed with \$6500 and staff time.

The project design and data collection involved both mobile monitoring and fixed-site monitoring. A route was designed considering the density of woodstoves in the region, land use, arterial and major roads and a previous 2005 CRUISER study. The mobile monitoring route was 213 Km in length and covered the City of Kelowna, Peachland, City of West Kelowna, Westbank First Nation, Lake Country and East RDCO rural area. Mobile monitoring was conducted by positioning DustTrak and GPS instruments inside a vehicle. The vehicle was driven 26 times along the predetermined route under a range of venting conditions and times of day during November 2015 to April 2016. Over this period, there were several areas that consistently had higher PM_{2.5} values than surrounding areas. These areas were defined as both major and minor hot spots. The biggest hotspot was located in Rutland from data collected on Highway 33, Hollywood and Rutland road, followed by the Mission (Okanagan view) and Lake Country (Woodsdale).



Stationary monitoring was achieved by positioning an E-BAM at two locations: Johnson Bentley Memorial Aquatic Centre in West Kelowna and City Hall in downtown Kelowna from November to April 2016. The stationary monitoring revealed differences in meteorology and concentrations of PM_{2.5} in the two temporary locations from the operational monitoring station located at Okanagan College. The BC objective was never exceeded when measured by the SHARP monitor at Kelowna College. The 24-hour rolling average recorded on the mobile E-BAM was exceeded twice; at downtown Kelowna during January 6th – 7th and in West Kelowna on February 12th. These episodes were significant, as an air quality advisory would have been issued if these values were observed at the operational KLO Okanagan College monitoring site.

The mobile data and hot spots had helped us redirect the educational efforts and future planning; for example, educational efforts on wood burning practices should be readdressed to neighborhoods with high PM_{2.5} exposure; major hot spots in the Rutland area and minor hot spots that were noticeable in downtown Kelowna, West Kelowna, and in Lake Country/Winfield. Campaigns to improve vehicle efficiency and maintenance are also recommended. All data collected will support future studies (e.g. transportation, population exposure). A [final document](#) is available in the RDCO website.

Ministry's Monitoring Station relocation (2019)

The first comprehensive air monitoring station was officially opened in Kelowna in 1994. The pollutants measured in the Central Okanagan airshed, are H₂S Hydrogen sulfide, PM_{2.5}, PM₁₀, sulphur dioxide (SO₂), nitrogen oxides (NO_x), ozone (O₃), and carbon monoxide (CO). This station has been upgraded through the years. A Tapered Element Oscillating Microbalance (TEOM) monitor for PM₁₀ was installed in the Kelowna College since 1998. Ministry of the Environment (MoE) installed a number of different Synchronized Hybrid Ambient Real-time Particulate monitor (SHARP) units at the Kelowna Station, which were discontinued due to technical difficulties. For the current unit in operation at the Kelowna Station, PM_{2.5} monitoring and reporting was officially switched over from the TEOM to the SHARP in April 2014. The ambient air pollutants of greatest concern in relation to human and environmental health in the Central Okanagan are particulate matter and ozone.

- In 2018, due to Okanagan College renovations plans, the provincial monitoring station needed to be relocated.
- Several sites were identified and analyzed by Ministry staff with the support of air quality technical committee members. The RDCO building (backyard) was selected.
- The installation of the monitoring station at the RDCO building on KLO Road in Kelowna was completed in September 2019 by the Ministry. The instruments (SO₂, NO_x, CO, O₃ and PM_{2.5}) were calibrated and are now collecting valid data along with the associated meteorology. [BC stations](#).
- The temporary PM_{2.5} site at the Kelowna WWTP was converted to PM₁₀ to provide data on the coarser particulate fraction ('dust') as the configuration of the RDCO station does not allow for an additional PM instrument.



Small Low-Cost Air Quality PM Sensor Pilot Project (2021-2023)

The Regional District of Central Okanagan in collaboration with local governments and SD23, is participating on a Small Low-Cost Air Quality PM Sensor Pilot Project. This is a 3-year pilot conducted by the Meteorological Services of Canada (MSC), a branch within Environment and Climate Change Canada (ECCC), to investigate the benefit of using emerging low-cost sensor technologies to measure Particulate Matter (PM) and to partner with governments, institutions and interested stakeholders to augment current air quality (AQ) monitoring networks. ECCC provided eight (8) low-cost Air Quality Particulate Matter Sensors to the Central Okanagan. These sensors are located at:



- One at Fire Station 101 - North Westside
- One at Fire Station 51 - Joe Rich

- One at Peachland Municipal Hall
- Five additional sensors will be installed within School District 23 schools/properties-May-June 2021.

Real-time PM_{2.5} data is available to the community via a map product: (<https://cyclone.unbc.ca/aqmap>). The PurpleAir sensor data displayed on the UNBC map includes a correction factor to improve the data accuracy.

Anti-idling

Idling control is one of the actions being explored to reduce GHG emissions from the on-road transportation sector, the largest contributor to community GHG emissions in the region. Considered a municipal environmental best practice, an idling control bylaw would put the Central Okanagan municipalities in line with 30 British Columbia municipalities that have implemented similar bylaws; an idling control bylaw is an effective method to build awareness for climate initiatives and reduce emissions. To effectively reduce vehicle idling, a two-pronged approach that includes both regulation and education is recommended. Education, combined with regulation and enforcement, will help change people's behaviours over time.

Vehicle idling occurs when a vehicle is in operation but not in motion. Although the vehicle is stopped, the engine is still running and creating unnecessary emissions. Natural Resources Canada^{5 6} states that idling for more than 10 seconds uses more fuel and produces more CO₂ than restarting the engine. However, to balance factors such as fuel savings, emissions and component wear, 60 seconds is the recommended interval. The message is: If you're going to be stopped for more than 60 seconds – except in traffic – turn the engine off. Potential community CO₂ reductions, based on the 2018 Okanagan Travel Survey are estimated to be 2,506 to 15,037 tonnes /year for the entire region; considering all drivers avoid idling for 1-min to 6minutes per day.



On June 19, 2019, the RDCO CAO Committee directed staff to report to the RDCO Governance & Services Committee on the Strategies to reduce PM_{2.5} and to present the Idling Control Bylaw Proposal to interested municipalities within the region. Staff are preparing to present the Idling Control Bylaw to City of Kelowna Council by mid-2021.

Collaboration with other institutions and Regional Districts

As shown, a successful collaboration with federal, provincial, local governments, universities, associations, among many others, has allowed the continuation and implementation of the Clean Air Strategies during the past few years. The air quality program has contacted the Regional District of Okanagan-Similkameen (RDOS) and the Regional District of North Okanagan (RDNO) every year to continue our collaboration on the Woodstove Exchange program. In the past, we used to send one joined application to get provincial funding on behalf of the three Regional Districts. RDOS, accepted to participate and we sent a joined application in 2013, 2015 and 2016. The RDOS hired a part-time staff for that program only for that period and has declined to participate the past few years. The RDNO has declined the invitation every year (2013-2020). In the latest communication (September 2020), staff from both districts indicated that senior management in their respective regional districts, have not approved resources for a dedicated staff to run any air quality programs.

⁵ Natural Resource Canada-Idle-Free Zone

⁶ Which Is Greener: Idle, or Stop and Restart?

Pollutant reduction (2003-2020)

Through all the Air Quality Program actions and other Transportation Demand Management Programs an average of **121 tonnes** of particulate matter (PM_{2.5}), **722 tonnes** of CO, **21 tonnes** of NO_x, and **116 tonnes** of VOC's have not been released to the airshed each year (2003-2020). The annual air quality educational efforts reach through social media, newspaper and newsletters, an average of 63,000 Central Okanagan residents per program per year (average 2017-2020).

Conclusion:

This report describes the most significant Clean Air Strategies results and ongoing programs and projects. During the past few years, the air quality technical committee has identified several strategies and policies that could lead to additional and more significant pollutant reductions, e.g. update time to start outdoor burning, regulate campfires, dust management, radon awareness/testing, among others. Further steps need to be taken to continue the region's Air Quality progressive agenda and continue leading other local governments and regional districts by example.

Next Steps:

The Air Quality Program would like to present the Strategies to reduce PM_{2.5} and a possible Bylaw 773 update later this year. The estimated timeline is as follows:

Date	Action
August 2021	Present Strategies to reduce PM _{2.5} and Bylaw 773 update for the G&S C consideration
Sep-Nov 2021	Public Engagement
January 2022	Present Results and Bylaw 773 for adoption – 1 st , 2 nd and 3 rd readings
February-August 2022-	Public education period – six months

Attached as part of this report:

Appendix 1- Air Quality Overview (ppt)

Financial/Budgetary Considerations

None

Communications Comments:

Considerations not applicable to this report:

Legal/Statutory Authority:

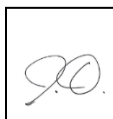
External Agency/Public Comments:

Legal/Statutory Procedural Requirements:

External Agency/Public Comments:

N. Mora Castro, Regional Air Quality Program Coordinator

Approved for inclusion:



J. D, Transit and Programs Manager

**People reached through social media -Average
2017-2020**

