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Year-end news and season's greetings for you!





President's Message

Louis Legal

2020. The Sunshine Coast Clean Air Society has evolved. Our summer newsletter indicated a possible amalgamation with the Sea to Sky Clean Air Society. We're pleased to announce that the amalgamation has now happened, although there remains some paperwork.



We will now be known as the Society for Atmospheric Solutions (SAS) or

just Atmosphere Solutions. The timing of our name change appropriately coincides with the UN Secretary General's call to the world to declare a *Climate Emergency*. Our health is affected by air pollution while our planet's health suffers because of GHG emissions. Our focus will be on finding workable solutions and initiatives in our region. Our new region will encompass the area on the Sunshine Coast from Egmont to Port Mellon and the Sea to Sky area defined by the Squamish-Lillooet Regional District boundaries.

The Sea to Sky Clean Air Society (SSCAS) held an AGM to elect the directors of the Sunshine Coast Clean Air Society (SCCAS) to the Board, and adopt the new name, purpose statement and updated bylaws. We followed this process to maintain the charitable status of the SSCAS.

The Sunshine Coast Clean Air Society (SCCAS) will continue as an entity until the end of March 2021 so that the transition from one organization to the other is smooth. As part of this exciting new transition, the board is considering an option that the SCCAS will remain intact past March,

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one of our initiatives: the 2 Degrees Institute. The focus **Translate**

our planet from warming by 2° Celsius. We hope to retain 2 Degrees Institute or some variant of that name.

As well as managing the amalgamation, our Executive Director has been busy applying for grants and advancing our 2020 strategic plan goals. Our contracts with the Ministry of the Environment and Climate Change and the Wood Stove Exchange Program (WSEP) have been renewed for 2021. An Emotive BC grant application has been successful, and we are hopeful on being awarded a BC Community Gaming Grant. We look forward to launching a new website in 2021.

Happy Holidays

Did you know that you can receive rebates for home heating efficiency upgrades to not only save you money, but lower your carbon footprint and improve indoor *and* neighbourhood air quality? It's a win-win-win-win!

Our rebates:

We offer rebates to residents of the Sunshine Coast and Sea to Sky region to support the exchange of old, non-EPA/CSA certified wood-stoves for a new electric appliance such as a Heat Pump. Residents of Sechelt are eligible for a \$250 top-up thanks to funding from the District of Sechelt.

These rebates are made possible thanks to the continued support from the BC Ministry of the Environment and Climate Change, and our partners at the BC Lung Association for our Wood Stove Exchange Program. Contact us at <u>info@cleanairsociety.ca</u> for more information.

BC Hydro rebates:

BC Hydro is doubling their <u>Home Renovation Rebates</u> right now for everything from improved space heating and water heating to upgrading your windows, doors and insulation. If you use electric heat, you can receive up to \$4,000 to install a <u>new heat pump system</u>, provided you *pre-register by December 31, 2020.*

Fortis BC rebates:

Do you heat with gas? If so, <u>Fortis BC</u> has you covered for efficiency improvement rebates too, including up to <u>\$4,000 to install a new heat pump system</u>.



Update on the Sunshine Coast Air Quality Monitoring Network

Our Air Quality Network now consists of 10 monitors extending from Langdale in the south to Egmont in the north at the following locations:

- Langdale
- 2 in Elphinstone
- Roberts Creek
- East Porpoise Bay
- West Sechelt

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 - Garden Bay
 - Egmont

We are still looking for a site to locate one more monitor in the Sandy Hook or Tuwanek area. As well, it is now our goal to install more monitors along the Sea to Sky corridor and especially in Pemberton where we know that

wood smoke from heating can be problematic. We will be seeking more funding to purchase more monitors.

Air Quality Map

The manufacturer of the Purple Air monitors located around the world provides a map display to help interpret the information. We originally thought that the Purple Air map would be adequate to display our network data. However, issues were quickly identified with the map display and the monitors:

- The primary information displayed on the Purple Air Map is the US Air Quality Index. This index is not appropriate because Canada utilizes a much different index called the Air Quality Health Index (AQHI). As well the US AQI is calculated incorrectly according to the EPA. In calculating averages over time, there should be more weight given to readings more recent in time. EPA uses a methodology called *Nowcast* to calculate time averages.
- Another problem is that the PA monitors read too high at low concentrations of particulate matter (PM). Studies conducted at the University of Utah, in Portland OR, and at the University of Northern BC in Prince George compared PM concentrations with industry standard AQ monitors and identified a consistent bias with the monitors. However, the studies also demonstrated that the PA monitors were quite accurate once the bias was removed using regression derived equations.

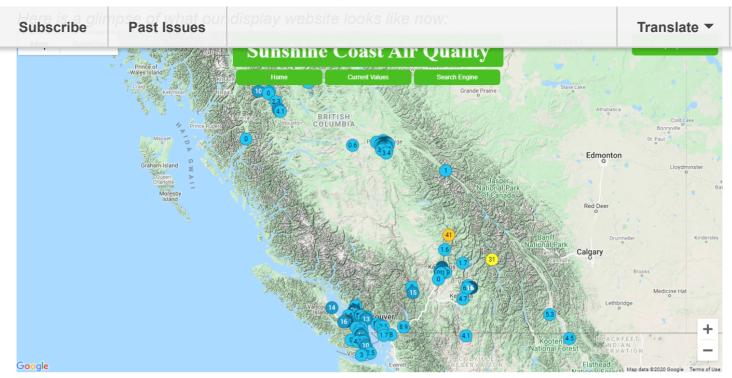
For these reasons, we decided to build our own Purple Air monitor display map, which we've been working on throughout 2020 with support from the Sunshine Coast Regional District and the expertise of a student who volunteered his time as a way to give back for the supports he received from the COVID-19 emergency benefit.

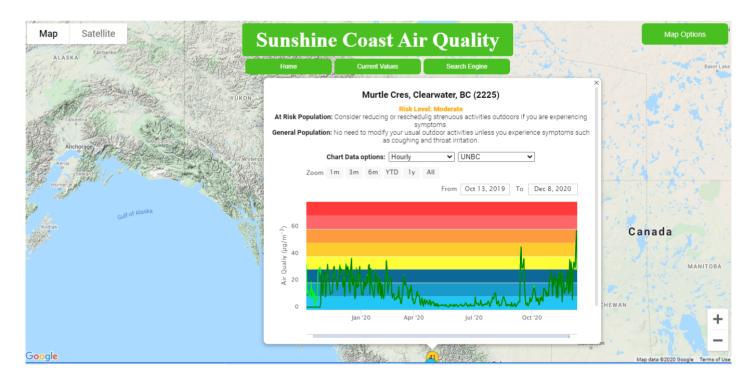
We now have a <u>Beta version of our map display website</u> which needs a bit more work to fix a couple of bugs and improve its usability. A similar <u>PA monitor display website</u> has been constructed by Professor Peter Jackson of the University of Northern BC. UNBC was the first to develop a working display with develop a working display that corrects, as ours does, to compensate for the PA monitors' biases.



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Wishing you health and happiness this holiday season





Air Quality Monitors Available

The Sunshine Coast Clean Air Society's AQ network still has a few holes. We need a monitor in Sandy Hook or Tuwanek and we are looking to expand our monitoring network in Pemberton and surrounding area. If you live in these communities and have year-round WiFi, please contact us to discuss hosting one of our air quality monitors, free of charge!



info@cleanairsociety.ca.



Dollars and Sense of Electric Vehicles

We're pleased to announce that we are partnering with <u>Plugin BC</u> (a program of the <u>Fraser Basin</u> <u>Council</u>) and the BC Government's CleanBC <u>Go Electric Program</u> to develop an educational animation video campaign that will highlight the economic rationale for choosing an electric over a conventional gas vehicle. The funds will enable us to update our <u>2017 report on the fuel and</u> <u>maintenance cost comparisons</u> between conventional gas and electric vehicles, work with an animator to create the video, and hire a UBC student to lead our coordinated social media campaign. Stay tuned for the launch of the updated report and video in March 2021!

BC Lung Association Annual Workshop

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2021 AIR QUALITY & HEALTH VIRTUAL WORKSHOP

Air Quality and COVID-19 Pandemic

March 3, 2021 (9am Pacific Standard Time)

COVID-19 is caused by a coronavirus that has spread worldwide and has been declared a global pandemic. People infected with COVID-19 experience a range in symptoms and severity of illness. In severe cases, infection can lead to hospitalization and death. Previous work provides evidence to suggest that exposure to air pollution increases susceptibility to respiratory viral infections and pneumonia.

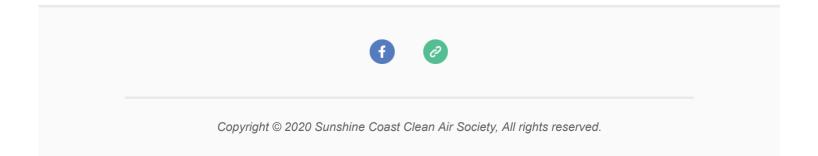
Early in 2020, the coronavirus began spreading rapidly across the world and the health care systems in many jurisdictions were becoming overwhelmed. In response, many countries attempted to control transmission of the virus with various strategies to limit contact between people, including lockdowns, travel restrictions, business closures and recommendations for people to stay home.

Researchers world-wide have taken advantage of this phenomenon to study the impacts of COVID-19 restrictions on air quality. At the same time, there have also been efforts to evaluate the effect of air pollution on COVID-19 transmission and illness severity. The 2021 BC Lung Air Quality and Health Workshop will explore the latest research on the relationship between air quality and COVID-19, including:

- how COVID-19 restrictions have impacted air quality across the globe,
- the mechanisms, biology and epidemiology of respiratory infections, particularly in the context of COVID-19 infections,
- the impact of poor air quality on COVID-19 transmission and illness severity, and
- the implications of current research on public policy and interventions.

Registration to open soon!

Merry holidays and happy Solstice from all of us at Atmosphere Solutions!



Wishing you health and happiness this holiday season

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