



**Office of the  
Chief Medical  
Health Officer**

July 15, 2021

*Sent via email*

Town of Lake Cowichan  
39 South Shore Road  
Box 860, Lake Cowichan, BC V0R 2G0  
[general@lakecowichan.ca](mailto:general@lakecowichan.ca)

**NORTH ISLAND**

**250.331.8591**

Charmaine Enns  
MD, MHSc, FRCPC  
355 – 11<sup>th</sup> Street  
Courtenay, BC V9N 1S4

**CENTRAL ISLAND**

**250.739.6304**

Sandra Allison  
MD MPH CCFP FCFP FRCPC

Mike Benusic  
MD, MPH, CCFP

3<sup>RD</sup> Floor 6475 Metral Drive  
Nanaimo, BC V9T 2L9

**COWICHAN REGION**

**250.737.2020**

Shannon Waters  
MD, MHSc, FRCPC  
4<sup>th</sup> Floor 238 Gov't St  
Duncan, BC V9L 1A5

**SOUTH ISLAND**

**250.519.3406**

Richard Stanwick, CMHO  
MD, MSc, FRCPC, FAAP

Murray Fyfe  
MD, MSc, FRCPC

Dee Hoyano  
MD, FRCPC

1837 Fort Street.  
Victoria, BC V8R 1J6

**AFTER HOURS ON CALL**

**1.800.204.6166**

Dear Colleague:

**Re: Wildfire Smoke and Health related to Planning**

Island Health would like to follow up on correspondence sent earlier this month related to our recent region-wide Extreme Heat Alert. Increasing annual temperatures, leading to hotter, drier summers, are precipitating ripple effects, such as Level 3-4 drought conditions covering all of Vancouver Island and the Gulf Islands. Severe wildfire seasons, seasonal water shortages, and heat waves are the three highest-ranked future risks predicted for the province - they are closely related and could have further compounding consequences ([MOE, 2019](#)). Our current [high to extreme fire danger](#), and what we see elsewhere in the province, means the potential for wildfires locally and drifting smoke from elsewhere blanketing our region, a sure reality warranting preparation. This letter does not address emergency planning for interface wildfires, however, we encourage local governments to create or update their all-hazard [emergency management plan](#) and encourage members in your community to [understand what to do before, during and after a wildfire](#).

**Health effects of wildfire smoke:** In addition to the direct threat from burning, wildfires also release pollutants detrimental to human health and ecosystems ([WHO, 2018](#)). Smoky air makes it harder for the lungs to oxygenate the blood supply ([BCCDC, 2021](#)). The small particles can travel deep into the lungs on inhalation. They can cause both irritation and inflammation, which can persist until the air quality improves ([BCCDC, 2021](#)). Wildfire smoke causes episodes of the worst air quality that most of the public will ever experience in British Columbia ([BCCDC, 2021](#)). It is, therefore, essential to be alert to this smoke affecting the health of many in our communities. As has been well documented medically, people with pre-existing health conditions, respiratory infections, older adults, pregnant women and infants, children, and sensitive individuals are more likely to experience health effects from smoke exposure ([MoE, 2021](#)).

**The role of the Medical Health Officer:** In conjunction with the BC Ministry of Environment, we may issue an [Air Quality Advisory](#), such as a Smoky Skies Bulletin. This office supports communications, provides public health advice, and supports preparations to shelter in place. For instance, our Environmental Health Officers can work with local governments, through the EOC structure, to determine suitable community clean air shelter locations and facilities ([BCCDC, 2021](#)). As our local government partner, your support to amplify this messaging and proactively plan is instrumental in addressing adverse health impacts.

**Where to find data?** – We encourage utilization of the following resources:

- [Air quality advisories](#) posted on the BC Ministry of Environment website, air quality advisories are issued when pollutant concentrations approach or exceed predetermined limits, or when degraded-air-quality episodes are expected to continue or worsen.

- [FireWork](#) – produced by Environment and Climate Change Canada, this wildfire smoke prediction system makes it possible to include the effects of wildfire smoke in forecasts of air quality by estimating the amount of pollution that will be added to the air. These smoke forecast maps show how the air quality in your community may be affected by wildfire smoke.
- The [BC Asthma Prediction System](#) (BCAPS) interactive online mapping system is intended for use by members of the public to support health protection during wildfire smoke events.
- The [Air Quality Health Index \(AQHI\)](#) provides hourly air quality readings and related health messages. The AQHI reports on the health risks posed by a mixture of pollutants.

**What can be done at an individual level?** To empower individuals, the BCCDC offers the following advice and [10 steps](#) on planning, air cleaners, masks and more.

**What can be done at a collective level locally?** – In order to assist decision makers the guidance below is available for planning and intervention during wildfire smoke events. The BCCDC has an [overarching webpage on Wildfire smoke](#) which has pertinent community planning resources related to [preparing for wildfire smoke events, filtration in institutional settings during wildfire smoke events](#), and an assessment of suitable options for [community clean air shelter\(s\)](#), where possible. To support planning efforts these case studies may be useful to tailor to your own purposes, such as: [Wildfire Smoke & Health](#) fact sheet by the Community Health Network in the [Capital Regional District, Community Wildfire Protection Plan](#) from the Village of Zeballos, or supportive resources from [First Nations Health Authority](#). In addition, consider risk to your surface water supplies and ensure that your Emergency Response Plan speaks to the [longer-term impacts to water quality](#) from wildfires. Island Health also has information on our website related to wildfire smoke at <https://www.islandhealth.ca/learn-about-health/environment/wildfires>.

If you would like to discuss further, please contact our office or your local Environmental Health Office:

Victoria – 250.519.3401  
 Duncan – 250.737.2010  
 Nanaimo – 250.755.6215  
 Campbell River – 250.850.2111

Parksville – 250.947.8222  
 Port Alberni – 250.713.1355  
 Courtenay – 250.331.8518  
 Port Hardy – 250.902.6071

We look forward to ongoing engagement, support and protection for all in our communities.

Sincerely,



Richard S. Stanwick, MD, MSc FRCPC FAAP  
 Chief Medical Health Officer



Murray Fyfe, MD, MSc, FRCPC  
 Medical Health Officer



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