Using Outdoor Air Quality Sensors

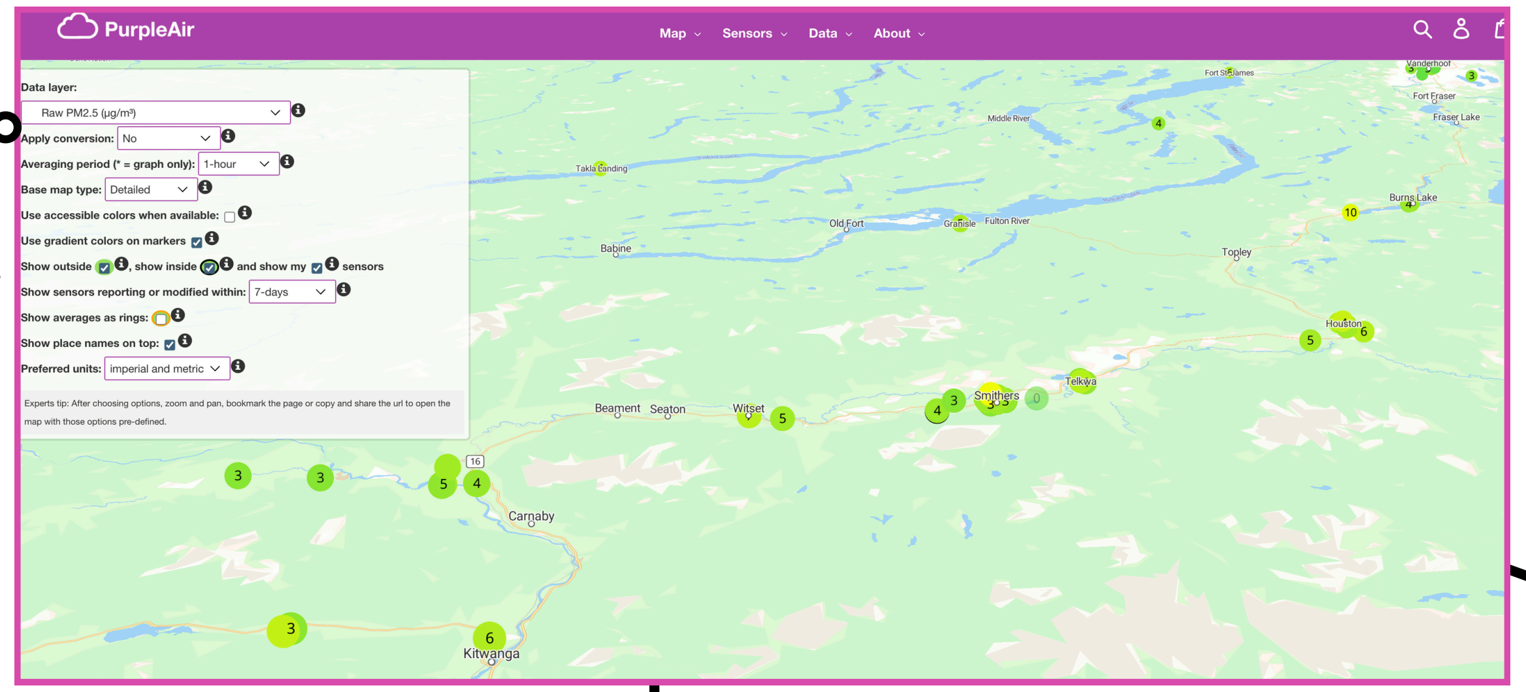
bulkley valley - lakes district
airshed management society

1 **Click the Link**

2 **Check the filters**

This is a measure of density for a particle that is smaller than this (.)

In the BVLD Airshed, PM2.5 is the particle size that is most harmful, PM10 includes 2.5, its bigger like road dust



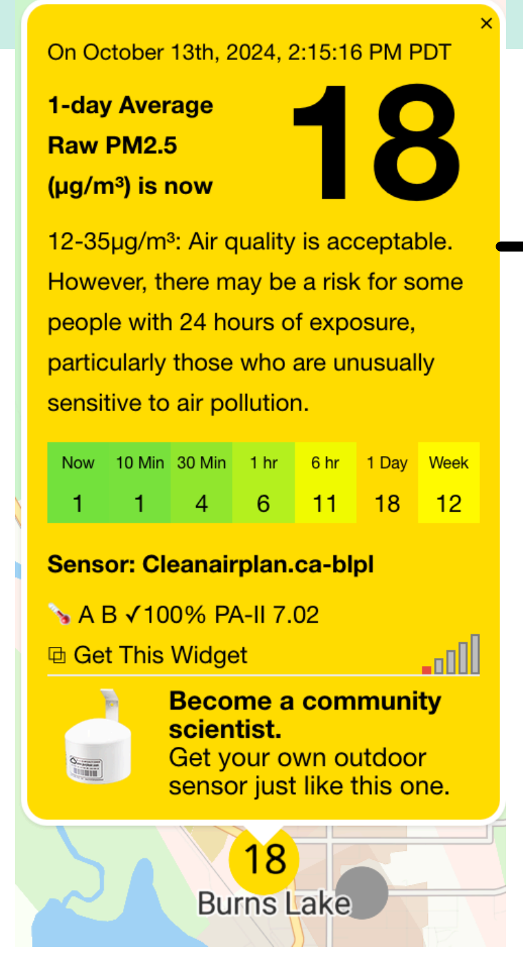
Data layer: Raw PM2.5 (µg/m³)
Apply conversion: No
Averaging period (* = graph only): 1-hour
Base map type: Detailed
Use accessible colors when available: ☐
Use gradient colors on markers ☑
Show outside ☑, show inside ☑ and show my ☑ sensors
Show sensors reporting or modified within: 7-days
Show averages as rings: ☐
Show place names on top: ☑
Preferred units: imperial and metric

Experts tip: After choosing options, zoom and pan, bookmark the page or copy and share the url to open the map with those options pre-defined.

Start with these, then go with 10 minute or 24 hour averages to get real time data in your neighbourhood. Temperature is cool too.

3 **Zoom in and out**

Establish where you are and where you are going. What do you see?



On October 13th, 2024, 2:15:16 PM PDT

1-day Average Raw PM2.5 (µg/m³) is now **18**

12-35µg/m³: Air quality is acceptable. However, there may be a risk for some people with 24 hours of exposure, particularly those who are unusually sensitive to air pollution.

Now	10 Min	30 Min	1 hr	6 hr	1 Day	Week
1	1	4	6	11	18	12

Sensor: Cleanairplan.ca-blpl

A B ✓100% PA-II 7.02

Get This Widget

Become a community scientist.
Get your own outdoor sensor just like this one.

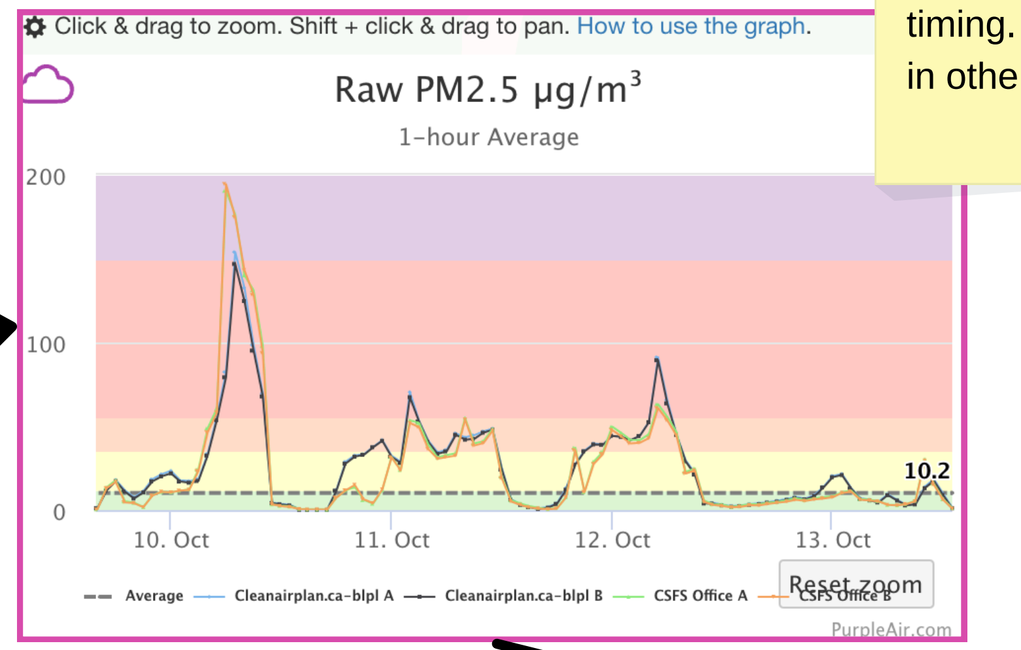
The Spot is a sensor, the 18 is the reading, there is the name of the sensor and a quality check - are sensors in the sensor agreed?

Grey dots are sensors offline; contact us.

High PM
a measure of 50 would mean many particles in our air

Low PM
a measure of 0 would mean none

What is the trend?



Click & drag to zoom. Shift + click & drag to pan. How to use the graph.

Use your mouse to zoom in and out and check out timing. You can also add in other sensors.

Early mornings terrible, very high while you sleep, midday is the best time of day, what is going on at night?

How did you sleep? Do you have a cold or cough, itchy/watery eyes? Other symptoms of poor air quality?

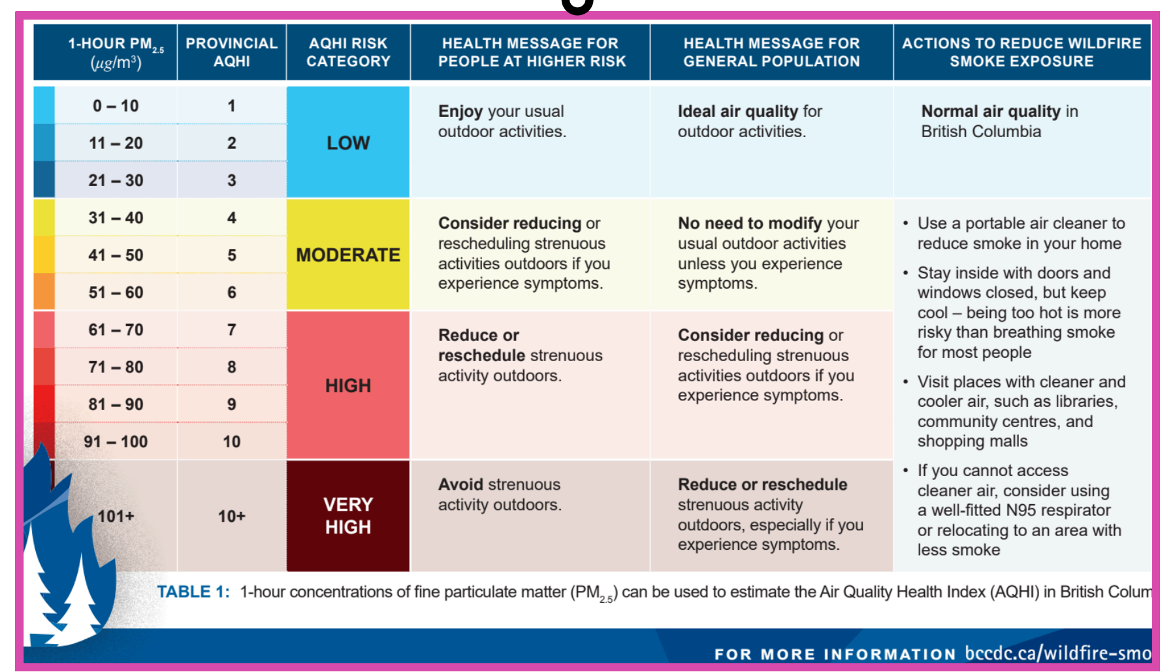
4 **Key Messages**

What are the health notices or advisories?

There is a message on that Spot, BC Env't also puts out messaging as does the BC CDC. Take heed, what resonates with you and how you feel?

http://www.bccdc.ca/health-info/prevention-public-health/wildfire-smoke

The colour of the Spot is also an indicator of risk of negative health effects.



1-HOUR PM$_{2.5}$ ($\mu g/m^3$)	PROVINCIAL AQHI	AQHI RISK CATEGORY	HEALTH MESSAGE FOR PEOPLE AT HIGHER RISK	HEALTH MESSAGE FOR GENERAL POPULATION	ACTIONS TO REDUCE WILDFIRE SMOKE EXPOSURE
0 – 10	1	LOW	**Enjoy** your usual outdoor activities.	**Ideal air quality** for outdoor activities.	**Normal air quality** in British Columbia
11 – 20	2				
21 – 30	3				
31 – 40	4	MODERATE	**Consider reducing** or rescheduling strenuous activities outdoors if you experience symptoms.	**No need to modify** your usual outdoor activities unless you experience symptoms.	• Use a portable air cleaner to reduce smoke in your home • Stay inside with doors and windows closed, but keep cool – being too hot is more risky than breathing smoke for most people • Visit places with cleaner and cooler air, such as libraries, community centres, and shopping malls • If you cannot access cleaner air, consider using a well-fitted N95 respirator or relocating to an area with less smoke
41 – 50	5				
51 – 60	6				
61 – 70	7	HIGH	**Reduce or reschedule** strenuous activity outdoors.	**Consider reducing** or rescheduling strenuous activities outdoors if you experience symptoms.	
71 – 80	8				
81 – 90	9				
91 – 100	10				
101+	10+	VERY HIGH	**Avoid** strenuous activity outdoors.	**Reduce or reschedule** strenuous activity outdoors, especially if you experience symptoms.	

TABLE 1: 1-hour concentrations of fine particulate matter (PM$_{2.5}$) can be used to estimate the Air Quality Health Index (AQHI) in British Colum

FOR MORE INFORMATION bccdc.ca/wildfire-smo

React.

What are the levels?
How do you feel?
What do you see?
What is the weather and wind direction?

Take Action: close window, turn on the indoor air filter, don't light a pile or even a wood fire if you can avoid it. Go somewhere else.

5 **Share the link, try another**

Using these sensors, UNBC aqmap: this map shows wildfires and wind direction
windy.com: this map has air quality modelling

bulkley valley - lakes district
airshed management society

solutions for better air
cleanairplan.ca,
coordinator@cleanairplan.ca
mail: BAG 5000, 3726 Alfred Ave.
Smithers, BC V0J 2N0