

Updates to background concentrations lookup tool

Discussion at 2017 NW-AIRQUEST annual meeting

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Lookup 2009–2011 design values of criteria pollutants

This tool facilitates the retrieval of design values at user-specified locations across Washington, Oregon and Idaho.

- [Overview](#)
- [Methodology](#)
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For single point queries, click the map below to select a point, or manually enter coordinates in Lat/Long or UTM.

Latitude (decimal degrees) or UTM Northing (m): Longitude (negative decimal degrees) or UTM Easting (m):

UTM Zone (10-12; leave blank if entering Lat/Longs): Download output in CSV file?: Daily data?:

For multiple point queries, upload a CSV file containing the coordinates (25 kB max): [See instructions for formatting the CSV file](#)

No file chosen Download output in CSV file?: Daily data?:



Gridded design values of criteria pollutants

<http://lar.wsu.edu/nw-airquest/lookup.html>

Gridded design values of criteria pollutants

- Used extensively in permitting
- Based on measured and 12km CMAQ DVs from 2009- 2011
- Inverse distance weighted interpolation
- Daily gridded PM_{2.5}, SO₂ and NO₂ data added
- Time to update

For single point queries, click the map below to select a point, or manually enter coordinates in Lat/Long or UTM.

Latitude (decimal degrees) or UTM Northing (m): Longitude (negative decimal degrees) or UTM Easting (m):

UTM Zone (10-12; leave blank if entering Lat/Longs):

Download output in CSV file?:

Daily data?:

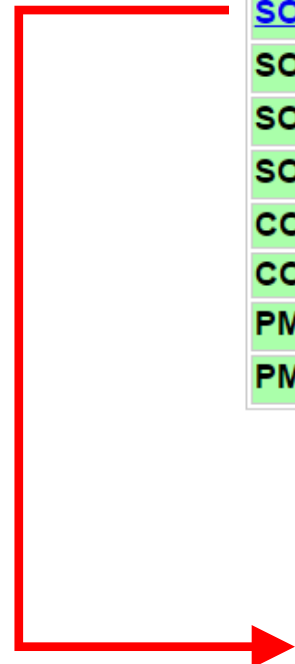


For multiple point queries, upload a CSV file containing the coordinates (25 kB max): [See instructions for formatting the CSV file](#)

Download output in CSV file?: Daily data?:



Lat or UTMN	47.87214
Lon or UTME	-118.6682
UTM zone	
In Washington Oregon or Idaho	YES
PM_{2.5} 24hr µg/m³	15
PM _{2.5} annual µg/m ³	5.5
O ₃ daily 8hr max ppb	54
O ₃ for PVMRM ppb	50
NO₂ 1hr ppb	7
NO ₂ annual ppb	0.7
SO₂ 1hr ppb	1.1
SO ₂ 3hr ppb	1
SO ₂ 24hr ppb	0.6
SO ₂ annual ppb	0.1
CO 1hr ppb	1034
CO 8hr ppb	566
PM ₁₀ 24hr µg/m ³	79
PM ₁₀ no extremes 24hr µg/m ³	60



	A	B
1	Date	SO2_1hr_ugm3
2	1/1/2009	14.094
3	1/2/2009	4.959
4	1/3/2009	12.528
5	1/4/2009	17.226
6	1/5/2009	8.613
7	1/6/2009	92.916
8	1/7/2009	18.27
9	1/8/2009	10.44
10	1/9/2009	14.877

Road to updated map

- Need more recent data with higher spatial resolution
- Users wish list:
 - 1-hour NO₂ values by hour of day (ooh that hurts)
 - Seasonal data (already exist)
 - Max value within user- selected rectangle
- > 3 yrs of 4km Airpact archives available
 - Which years? Stick to calendar years?
 - AP5 commenced in April 2016
 - AP4 performance was ???
- Should use a better interpolation scheme

Next slide has names assigned to tasks

- Volunteer before I flip to the next slide.
 - Pull 3 yrs of daily criteria pollutant data
 - Not just AQS sites
 - Need “border” sites from BC, MT, WY, UT, NV and CA
 - Somewhat consistent data format
 - Process 4km CMAQ archives- Ranil
 - Interpolation method
 - Geographically weighted regression?
 - Empirical Bayesian krigging?
 - Scripting
 - Daily (seasonal) data for $PM_{2.5}$, NO_2 and SO_2 , DVs for rest?
 - O_3 for PVMRM and PM_{10} without extremes: still needed?

Do I need to show “that” slide?



Yes: Click
here



No: We're
still friends

Here it is (in white font)