

July 29, 2025

Lorna Morishita

Executive Director of Palliser Airshed Society
PO Box 23121 Medicine Hat Mall
Medicine Hat AB T1B 4C7

RE: Palliser Airshed Society (PAS) Ambient Air Monitoring Report – June 2025

Enclosed is the PAS Dashboard Report for the month of **June 2025**.

Continuous Monitoring – Crescent Heights, Brooks – Meadow Place, Hanna and Raymond Airpointer Monitoring Stations

Included in this report are: Monthly Air Monitoring Summary Table, Station Issue Summary, Station Summary Graphs and Station Wind Roses.

Continuous Monitoring Instrumentation Uptime Summary:

There were no uptimes less than 90% in June.

AAAQO/G Exceedance Summary:

There were 54 exceedances of the 1-hour and 17 exceedances of the 24-hour AAAQO/G for PM_{2.5} (80/29 µg/m³) in June. All exceedances are attributed to wildfire smoke.

Station Name	Date	Start Time	End Time	1-Hour PM _{2.5} Concentration	Wind Direction	Wind Speed	Reference Number
		(MST)	(MST)	(µg/m ³)		(km/h)	
Brooks - Meadow Place	07-Jun-25	14:00	15:00	88	NNW	34.4	*
Crescent Heights	10-Jun-25	18:00	19:00	81	ENE	23.3	*
Brooks - Meadow Place	10-Jun-25	19:00	20:00	132	E	19.1	*
Crescent Heights	10-Jun-25	19:00	20:00	175	E	24.6	*
Brooks - Meadow Place	10-Jun-25	20:00	21:00	194	E	16.2	*
Crescent Heights	10-Jun-25	20:00	21:00	164	E	23.7	*
Brooks - Meadow Place	10-Jun-25	21:00	22:00	188	E	11.8	*
Crescent Heights	10-Jun-25	21:00	22:00	166	E	23.7	*
Brooks - Meadow Place	10-Jun-25	22:00	23:00	157	E	10.4	*
Crescent Heights	10-Jun-25	22:00	23:00	172	E	21.4	*
Brooks - Meadow Place	10-Jun-25	23:00	00:00	158	ESE	13.2	*
Crescent Heights	10-Jun-25	23:00	00:00	169	ENE	19.5	*
Brooks - Meadow Place	11-Jun-25	00:00	01:00	157	ESE	18.3	*
Crescent Heights	11-Jun-25	00:00	01:00	170	E	15.7	*
Brooks - Meadow Place	11-Jun-25	01:00	02:00	155	ESE	14.1	*
Crescent Heights	11-Jun-25	01:00	02:00	159	ESE	19.5	*
Brooks - Meadow Place	11-Jun-25	02:00	03:00	159	ESE	10.8	*
Crescent Heights	11-Jun-25	02:00	03:00	143	E	24.2	*
Brooks - Meadow Place	11-Jun-25	03:00	04:00	151	ESE	15.2	*

Station Name	Date	Start Time	End Time	1-Hour PM _{2.5} Concentration	Wind Direction	Wind Speed	Reference Number
Crescent Heights	11-Jun-25	03:00	04:00	136	E	21.8	*
Raymond (Airpointer)	11-Jun-25	03:00	04:00	92	SW	4.2	*
Brooks - Meadow Place	11-Jun-25	04:00	05:00	142	ESE	18.5	*
Crescent Heights	11-Jun-25	04:00	05:00	122	E	23.1	*
Raymond (Airpointer)	11-Jun-25	04:00	05:00	138	SW	5.5	*
Brooks - Meadow Place	11-Jun-25	05:00	06:00	140	ESE	12.9	*
Crescent Heights	11-Jun-25	05:00	06:00	111	E	23.6	*
Raymond (Airpointer)	11-Jun-25	05:00	06:00	134	WSW	6.4	*
Brooks - Meadow Place	11-Jun-25	06:00	07:00	130	ENE	9.2	*
Crescent Heights	11-Jun-25	06:00	07:00	111	E	20.7	*
Raymond (Airpointer)	11-Jun-25	06:00	07:00	132	W	6.1	*
Brooks - Meadow Place	11-Jun-25	07:00	08:00	127	ENE	9.1	*
Crescent Heights	11-Jun-25	07:00	08:00	93	ESE	18.6	*
Raymond (Airpointer)	11-Jun-25	07:00	08:00	132	W	8.0	*
Brooks - Meadow Place	11-Jun-25	08:00	09:00	111	SSE	14.2	*
Crescent Heights	11-Jun-25	08:00	09:00	82	SE	13.8	*
Hanna (Airpointer)	11-Jun-25	08:00	09:00	91	ESE	2.3	*
Raymond (Airpointer)	11-Jun-25	08:00	09:00	136	NW	6.9	*
Brooks - Meadow Place	11-Jun-25	09:00	10:00	107	SE	5.6	*
Crescent Heights	11-Jun-25	09:00	10:00	85	SSE	5.1	*
Hanna (Airpointer)	11-Jun-25	09:00	10:00	93	ESE	4.4	*
Raymond (Airpointer)	11-Jun-25	09:00	10:00	133	NW	6.9	*
Brooks - Meadow Place	11-Jun-25	10:00	11:00	107	SE	7.3	*
Hanna (Airpointer)	11-Jun-25	10:00	11:00	82	ESE	4.7	*
Raymond (Airpointer)	11-Jun-25	10:00	11:00	131	N	7.3	*
Brooks - Meadow Place	11-Jun-25	11:00	12:00	107	SE	9.5	*
Raymond (Airpointer)	11-Jun-25	11:00	12:00	124	NNE	3.8	*
Brooks - Meadow Place	11-Jun-25	12:00	13:00	98	SE	8.3	*
Raymond (Airpointer)	11-Jun-25	12:00	13:00	114	N	1.0	*
Brooks - Meadow Place	11-Jun-25	13:00	14:00	81	ESE	10.0	*
Raymond (Airpointer)	11-Jun-25	13:00	14:00	104	ENE	2.3	*
Raymond (Airpointer)	11-Jun-25	14:00	15:00	85	SSW	0.6	*
Raymond (Airpointer)	11-Jun-25	15:00	16:00	83	S	0.3	*
Hanna (Airpointer)	12-Jun-25	05:00	06:00	89	ESE	4.0	*
Hanna (Airpointer)	12-Jun-25	06:00	07:00	89	ESE	2.0	*

Station Name	Date	24-Hour PM _{2.5} Concentration (µg/m ³)	Wind Direction	Wind Speed (km/h)	Reference Number
Brooks - Meadow Place	07-Jun-25	33	WSW	4.6	441636
Brooks - Meadow Place	08-Jun-25	51	NNW	20.7	441636
Crescent Heights	08-Jun-25	30	NW	16.9	441808
Hanna (Airpointer)	08-Jun-25	30	NW	7.2	441810
Raymond (Airpointer)	08-Jun-25	33	WNW	3.4	441809
Brooks - Meadow Place	09-Jun-25	30	WNW	11.9	441636
Brooks - Meadow Place	10-Jun-25	70	E	4.3	441636
Crescent Heights	10-Jun-25	75	NE	6.4	441808
Hanna (Airpointer)	10-Jun-25	30	E	1.1	441810
Brooks - Meadow Place	11-Jun-25	95	SE	6.1	441636
Crescent Heights	11-Jun-25	80	E	8.4	441808
Hanna (Airpointer)	11-Jun-25	50	ESE	8.5	441810
Raymond (Airpointer)	11-Jun-25	95	N	0.3	441809
Brooks - Meadow Place	12-Jun-25	53	SSE	11.4	441636
Crescent Heights	12-Jun-25	50	NE	3.2	441808
Hanna (Airpointer)	12-Jun-25	53	ESE	6.5	441810
Raymond (Airpointer)	12-Jun-25	39	S	0.7	441809

If you have any questions, please contact the WSP office at 403-519-8480.

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Patrick Andersen

Patrick Andersen, B.Sc.
WSP AQM Data Specialist

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Lenin Flores
Project Manager

June 2025 Monthly Ambient Air Quality Summary

Jun-25 Palliser Airshed Society										Maximum Recorded Values					
Pollutant (units)	Objectives			Station	Monthly Average	1-Hour Minimum	Exceedence			1-hr		24-hr / 8-hr			
	1-hr	24-hr	30-day				1-hr	24-hr	30-day	Conc	Day	Conc	Day	Operational Time (%)	Calibration Date
SO ₂ (ppb)	172	48	8	Crescent Heights	0.1	0.0	0	0	0	1.0	Jun-11 23:00	0.3	Jun-11	99.9	Jun-25
NO (ppb)					0.6	0.0				15.6	Jun-09 01:00	1.5	Jun-09	99.9	Jun-24
NO ₂ (ppb)	159				2.9	0.0	0			24.9	Jun-09 01:00	5.1	Jun-09	99.9	Jun-24
NO _x (ppb)					3.5	0.0				40.5	Jun-09 01:00	6.6	Jun-09	99.9	Jun-24
O ₃ (ppb)	76				39.3	7.4	0			64.4	Jun-10 20:00	54.9	Jun-11	100.0	Jun-25
CO (ppm)					0.2	0.1				0.6	Jun-10 20:00	0.4	Jun-10	99.9	Jun-24
CO 8-Hour (ppm)	5				-	0.1	0			0.6	Jun-11 03:00	-	-	100.0	-
THC (ppm)					2.1	1.9				2.4	Jul-01 00:00	2.2	Jun-04	100.0	Jun-24
PM _{2.5} (µg/m³)	80	29			15.0	1.0	16	4		174.5	Jun-10 20:00	80.2	Jun-11	100.0	Jun-25
ET (°C)					18.3	6.3				32.7	Jun-09 14:00	23.8	Jun-09	100.0	-
RH (%)					48.4	8.9				100.0	Jun-12 19:00	94.0	Jun-21	100.0	-
GSR (W/m²)					286.2	0.0				969.2	Jun-17 14:00	365.7	Jun-30	100.0	-
WSPD (km/h)					2.2	0.6				33.3	Jun-01 01:00	18.5	Jun-11	100.0	08/11/24
WDIR					W									100.0	

Pollutant (units)	Analyzer			Notes
	Make		Model	
SO ₂	TEI		43i-TLE	Manual span check June 24.
NO/NO ₂ /NO _x	TEI		42i	Analyzer offline for 1 hour during O ₃ calibration June 25.
O ₃	TECO		49i	Manual span check June 25.
CO	TEI		48i-TLE	
THC	TECO		51C-LT	
PM _{2.5}	API		T640	Routine maintenance performed June 24-25.
ET/RH	RMYoung		41382VC	
GSR	Pyranometer		PY45774	
WS/WD	RMYoung		5305	

Jun-25 Palliser Airshed Society										Maximum Recorded Values					
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr		Operational Time (%)		
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day		Conc	Day
NO (ppb)				Brooks Meadowplace	0.2	0.0				6.4	Jun-03 07:00	0.6	Jun-16	99.6	Jun-18
NO ₂ (ppb)	159				3.2	0.0	0			12.8	Jun-03 06:00	5.7	Jun-12	99.6	Jun-18
NO _x (ppb)					3.3	0.0				18.8	Jun-03 07:00	5.6	Jun-12	99.6	Jun-18
O ₃ (ppb)	76				37.4	8.3	0			67.9	Jun-11 17:00	57.5	Jun-11	99.9	Jun-18
PM _{2.5} (µg/m ³)	80	29			18.0	1.0	20	6		194.3	Jun-10 21:00	94.6	Jun-11	100.0	Jun-18
ET (°C)					16.6	6.0				28.9	Jun-09 17:00	21.0	Jun-30	100.0	-
RH (%)					58.6	16.0				100.0	Jun-12 20:00	99.2	Jun-21	100.0	-
WSPD (km/h)					3.3	0.2				42.2	Jun-21 18:00	21.4	Jun-21	99.9	27/11/24
WDIR					NNW									99.9	

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	TEI		42iQ	Automatic spans did not trigger June 21 and 22, span system repaired June 22.
O ₃	TEI		49iQ	Manual span check June 3.
PM _{2.5}	API		T640	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	Wind logging offline for 1 hour during calibration visit.

Jun-25				Palliser Airshed Society							Maximum Recorded Values					
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date		
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day				
NO (ppb)					0.6	0.0				6.0	Jun-15 07:00	0.9	Jun-15	100.0	Jun-24	
NO ₂ (ppb)		159			2.8	0.1	0			14.9	Jun-03 03:00	4.9	Jun-04	100.0	Jun-24	
NO _x (ppb)					3.4	0.4				15.4	Jun-09 06:00	5.7	Jun-04	100.0	Jun-24	
O ₃ (ppb)		76			35.6	5.2	0			63.0	Jun-08 19:00	47.7	Jun-09	100.0	Jun-24	
PM _{2.5} (µg/m ³)		80	29		11.2	0.9	5	4		92.7	Jun-11 10:00	53.4	Jun-12	100.0	Jun-24	
ET (°C)					15.8	4.6				28.2	Jun-09 16:00	21.1	Jun-30	100.0	-	
RH (%)					56.6	14.1				97.2	Jun-12 23:00	93.2	Jun-21	100.0	-	
WSPD (km/h)					1.1	0.0				15.3	Jun-17 20:00	7.8	Jun-07	100.0	-	
WDIR					NW									100.0	-	

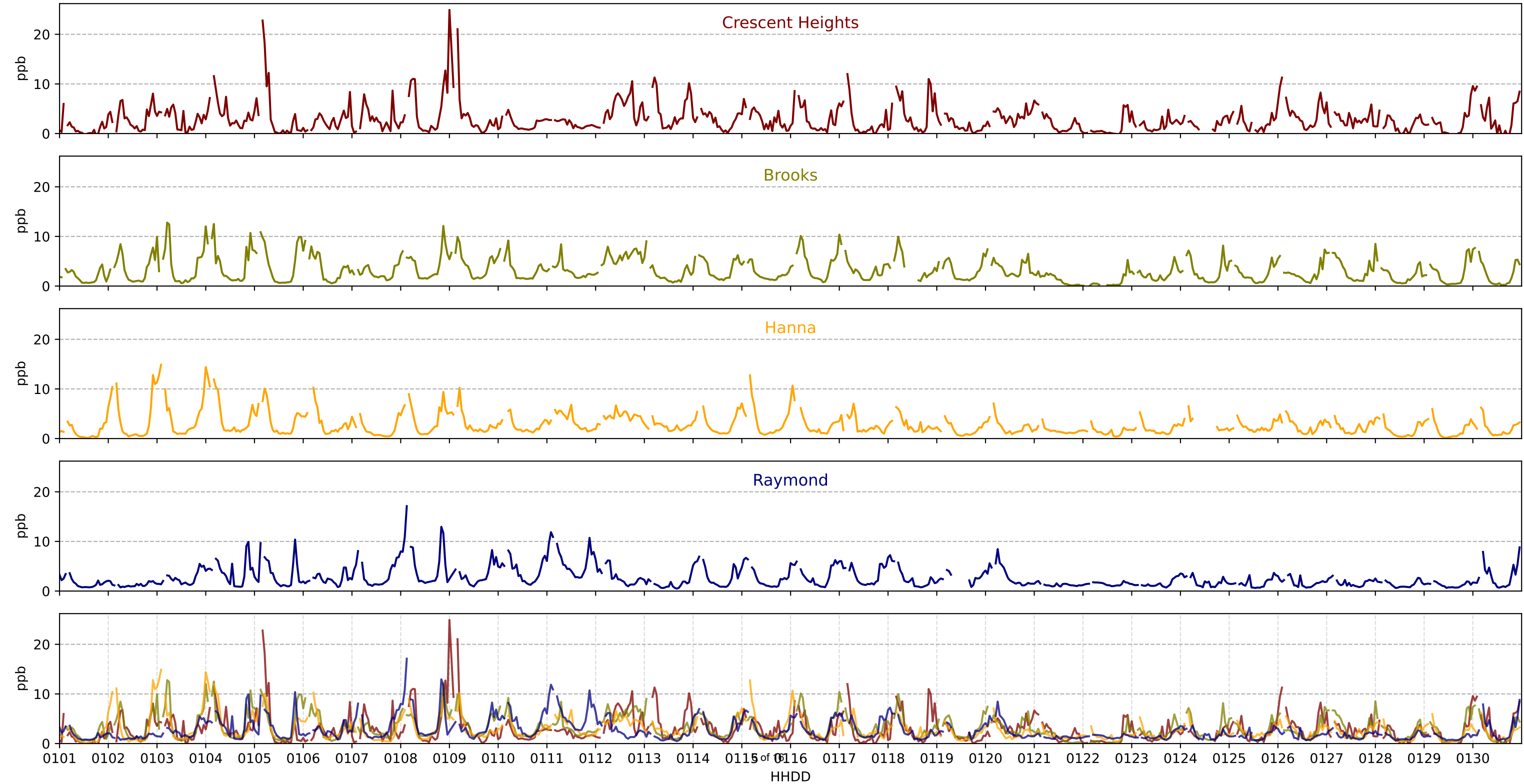
Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	
O ₃	Airpointer API		400e	
PM _{2.5}	Sharp		5030	
ET/RH	CS		HC2-S3	
WS/WD	RMYoung		5305	

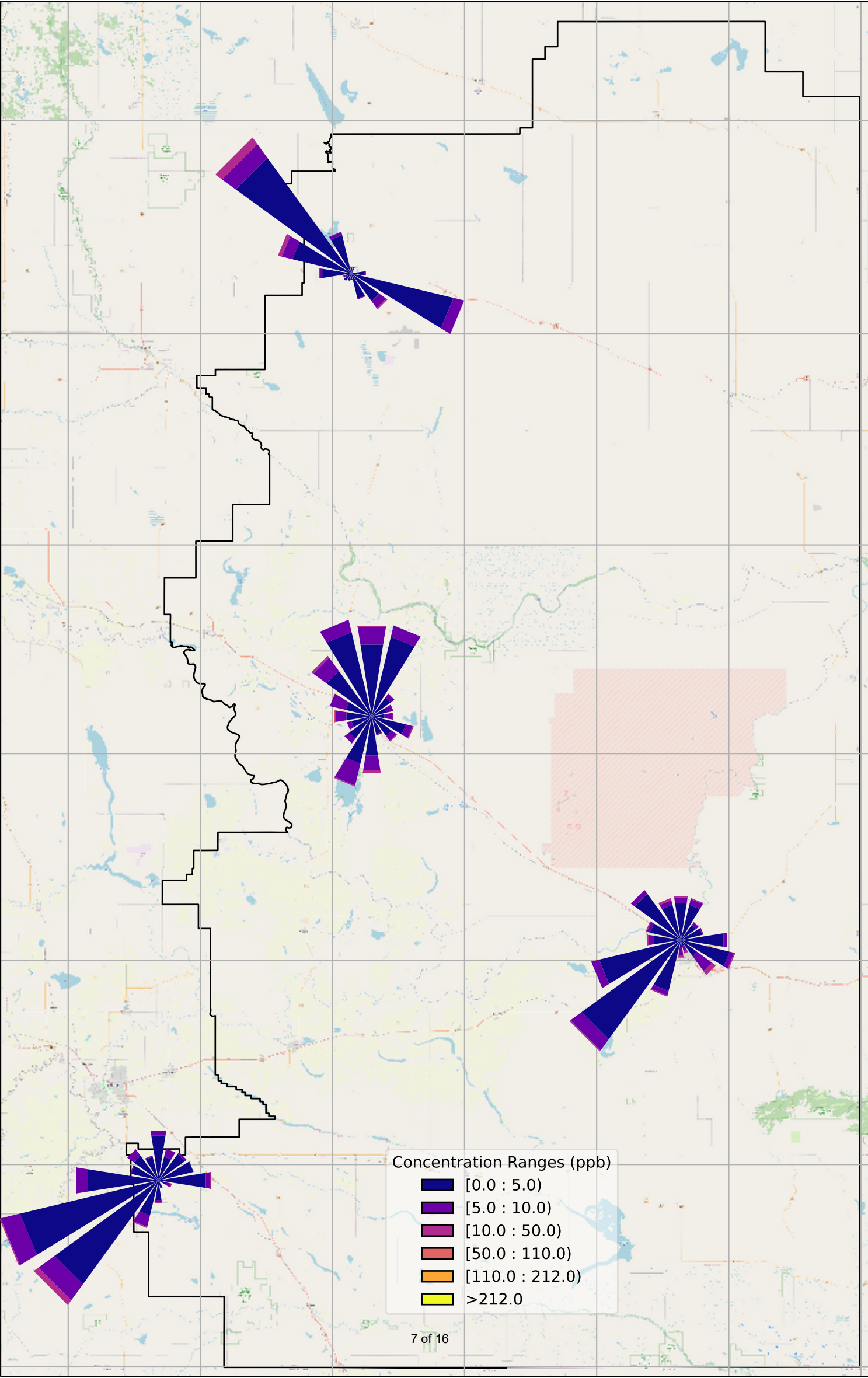
Jun-25				Palliser Airshed Society					Maximum Recorded Values							
Pollutant (units)		Objectives		Station	Monthly Average	1-Hour Minimum	Exceedence		1-hr		24-hr / 8-hr		Operational Time (%)	Calibration Date		
		1-hr	24-hr				30-day	1-hr	24-hr	30-day	Conc	Day			Conc	Day
NO (ppb)					0.3	0.0				8.6	Jun-04 14:00	0.9	Jun-04	100.0	Jun-19	
NO ₂ (ppb)		159			2.6	0.5	0			17.1	Jun-08 04:00	6.2	Jun-11	100.0	Jun-19	
NO _x (ppb)					2.9	0.5				17.4	Jun-08 04:00	6.4	Jun-11	100.0	Jun-19	
O ₃ (ppb)		76		Raymond Airpointer	32.8	5.4	0			70.5	Jun-11 17:00	44.7	Jun-11	100.0	Jun-19	
PM _{2.5} (µg/m ³)		80	29			12.4	0.0	13	3		138.3	Jun-11 05:00	94.6	Jun-11	100.0	Jun-19
ET (°C)						15.6	3.4				31.3	Jun-09 14:00	24.1	Jun-09	100.0	-
RH (%)						58.9	17.0				99.7	Jun-21 01:00	95.0	Jun-21	100.0	-
WSPD (km/h)						3.8	0.2				28.6	Jun-21 14:00	16.1	Jun-06	100.0	-
WDIR					W									100.0	-	

Pollutant (units)	Analyzer			Notes
	Make		Model	
NO/NO ₂ /NO _x	Airpointer API		200e	
O ₃	Airpointer API		400e	
PM _{2.5}	Sharp		5030	Analyzer failed May 23 and was removed for repair. Analyzer returned to service May 28.
ET/RH	Vaisala		WXT520	
WS/WD	Vaisala		WXT520	

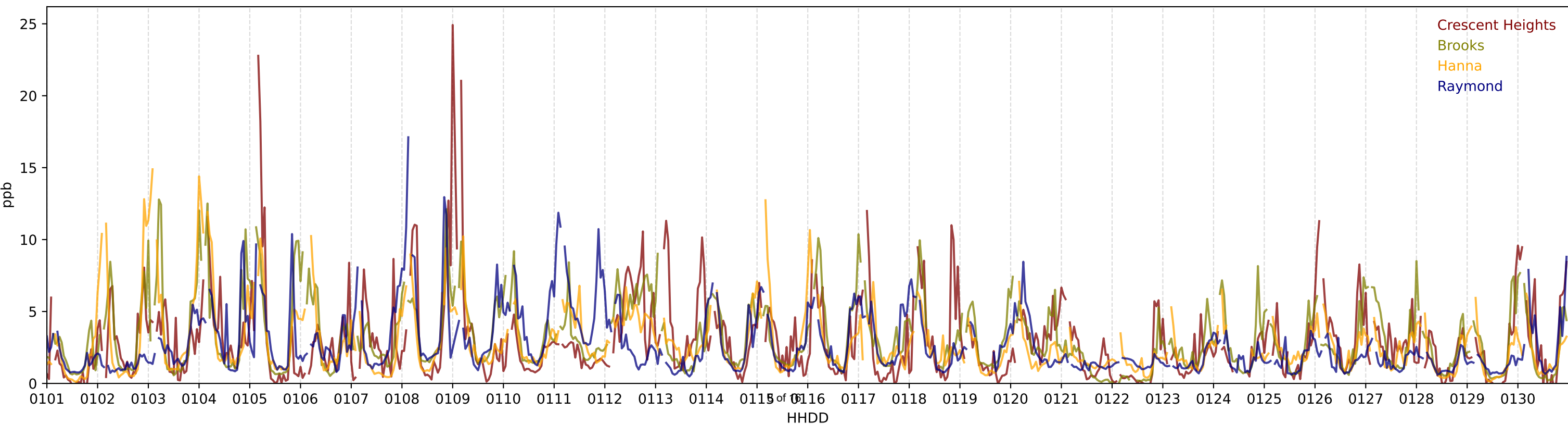
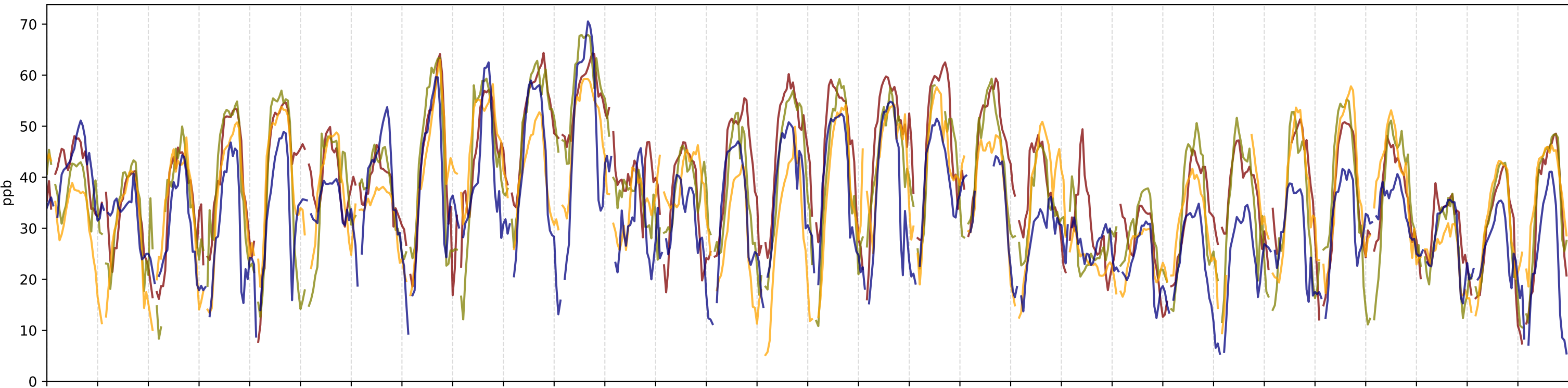
June 2025 NO₂

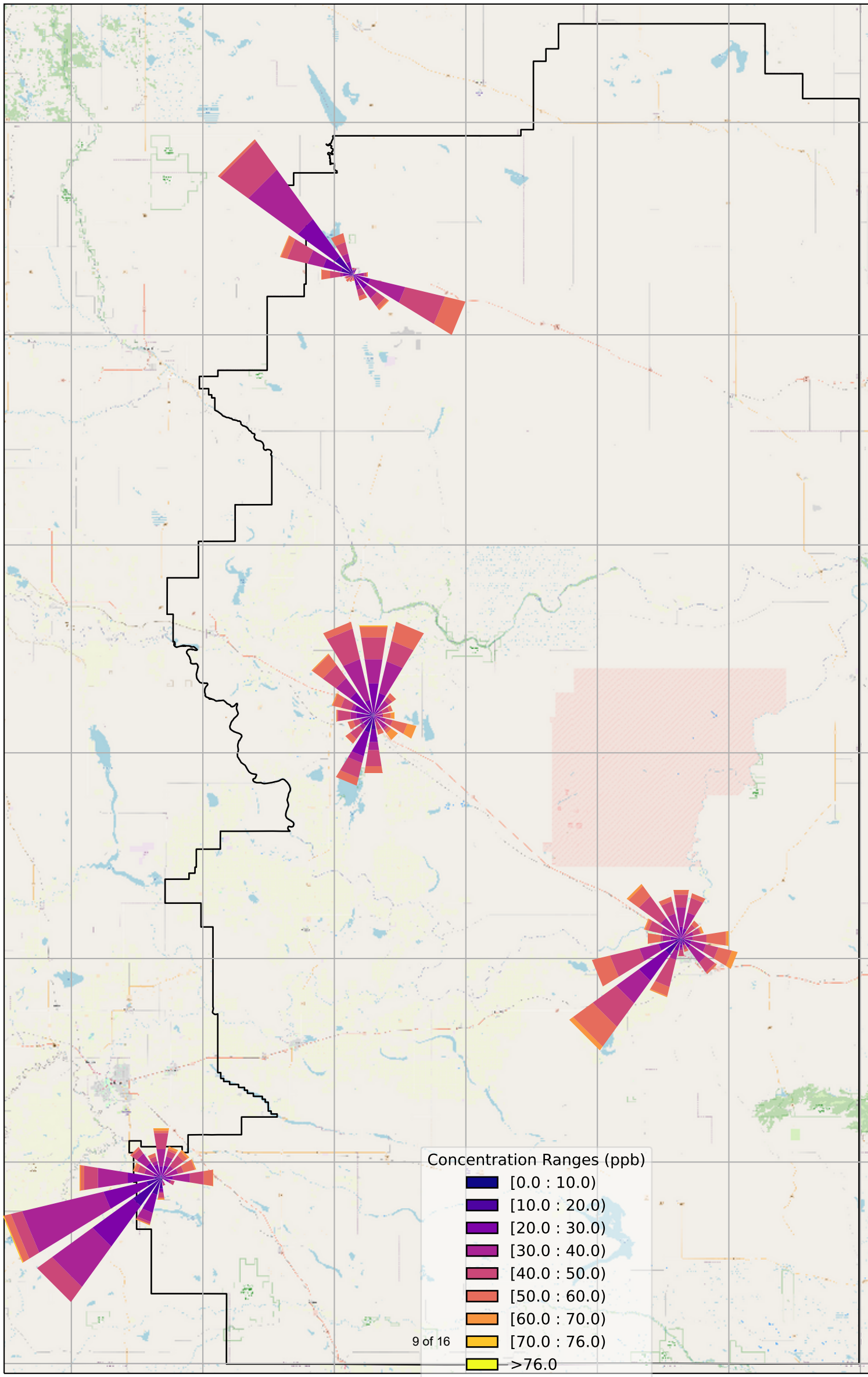
NO₂ AAAQO = 172 ppb





June 2025 O₃ vs NO₂





June 2025 PM_{2.5}

PM_{2.5} AAAQG = 80 $\mu\text{g}/\text{m}^3$

Crescent Heights

Brooks

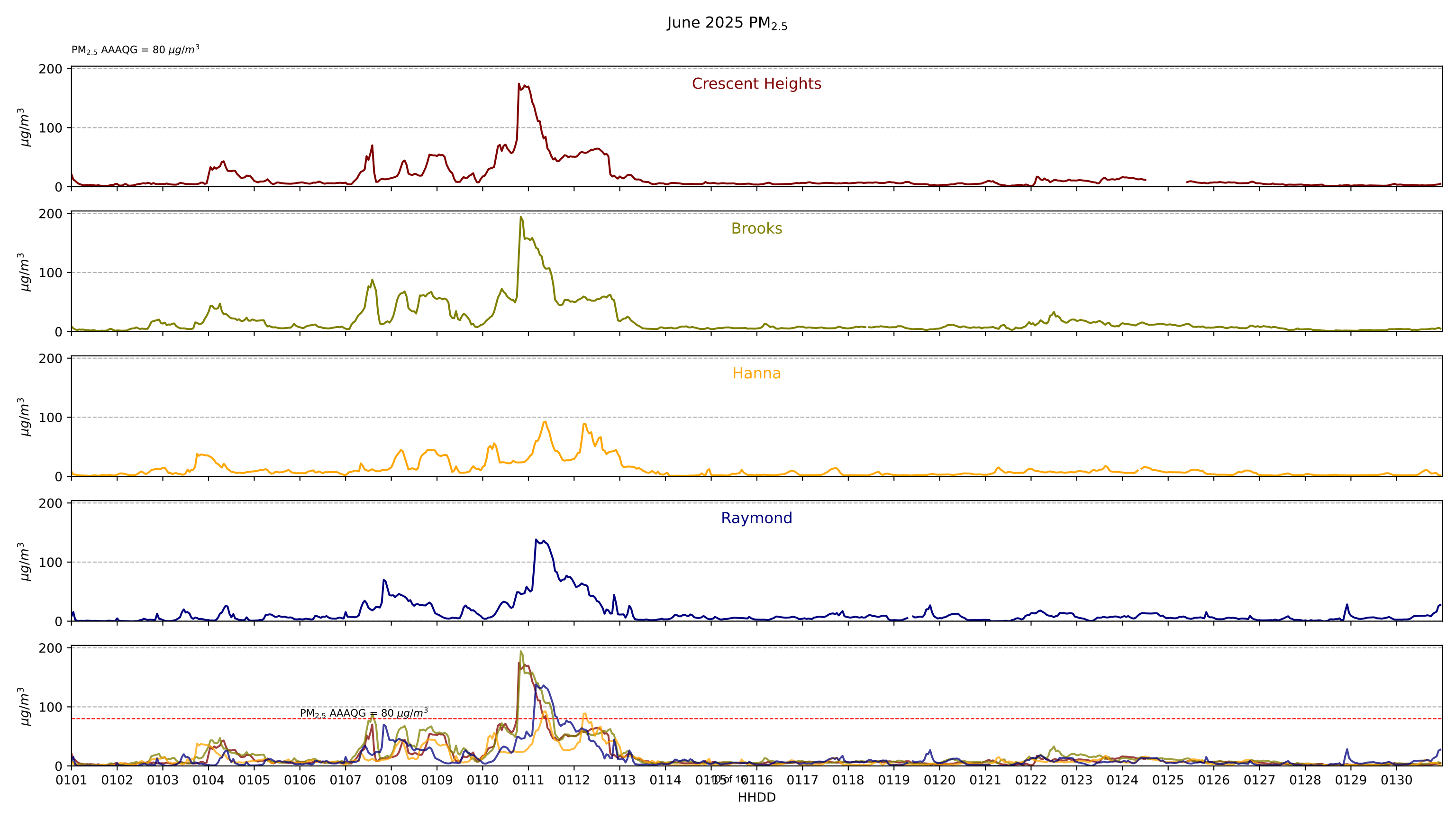
Hanna

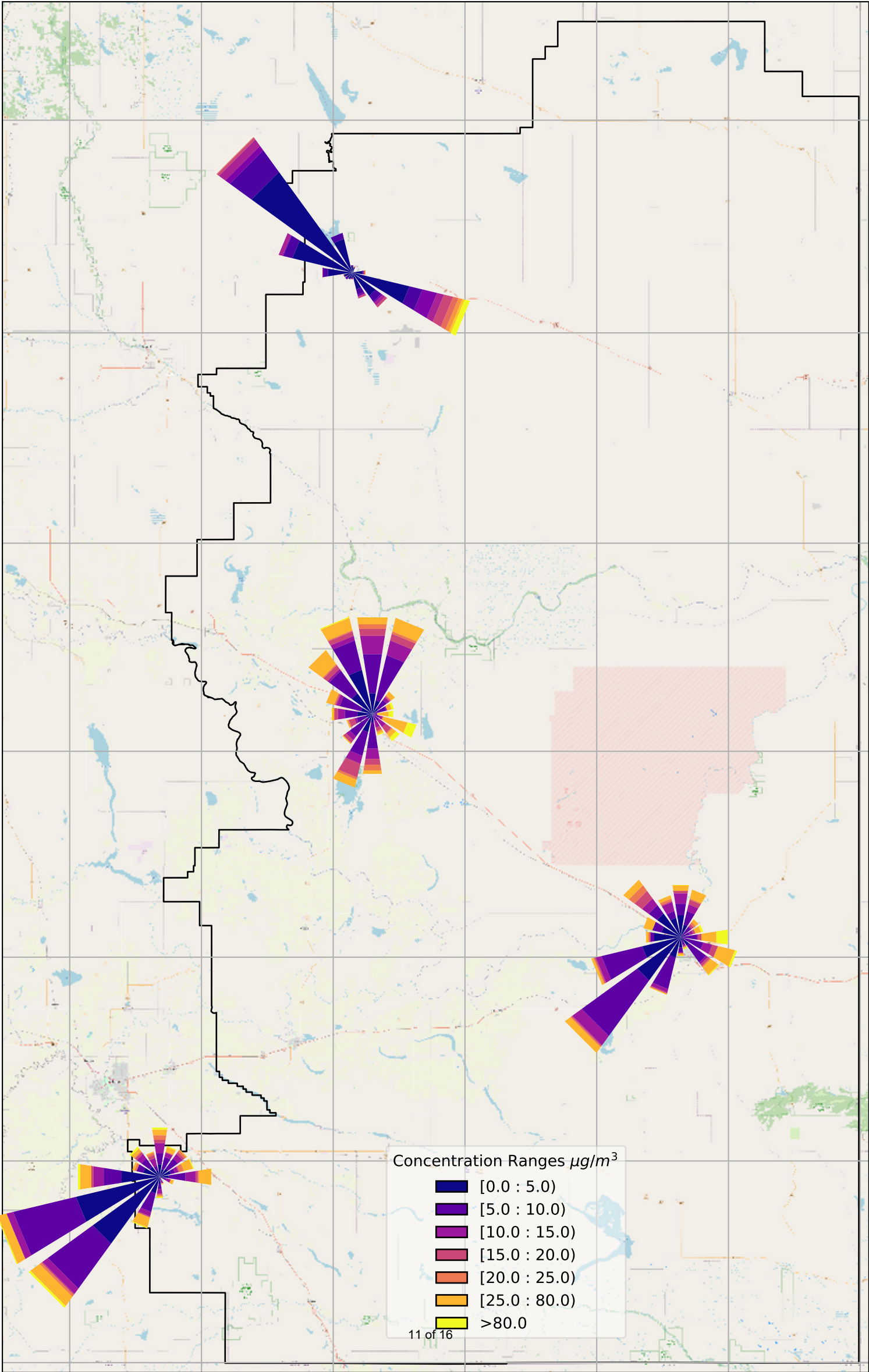
Raymond

PM_{2.5} AAAQG = 80 $\mu\text{g}/\text{m}^3$

HHDD

10 of 10





Concentration Ranges $\mu\text{g}/\text{m}^3$

[0.0 : 5.0)

[5.0 : 10.0)

[10.0 : 15.0)

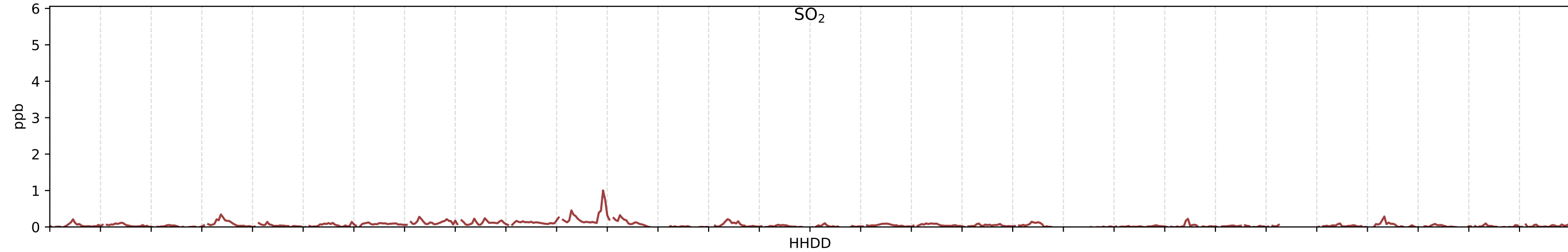
[15.0 : 20.0)

[20.0 : 25.0)

[25.0 : 80.0)

>80.0

SO₂ AAAQO = 172 ppb



CO AAAQO = 13 ppm

