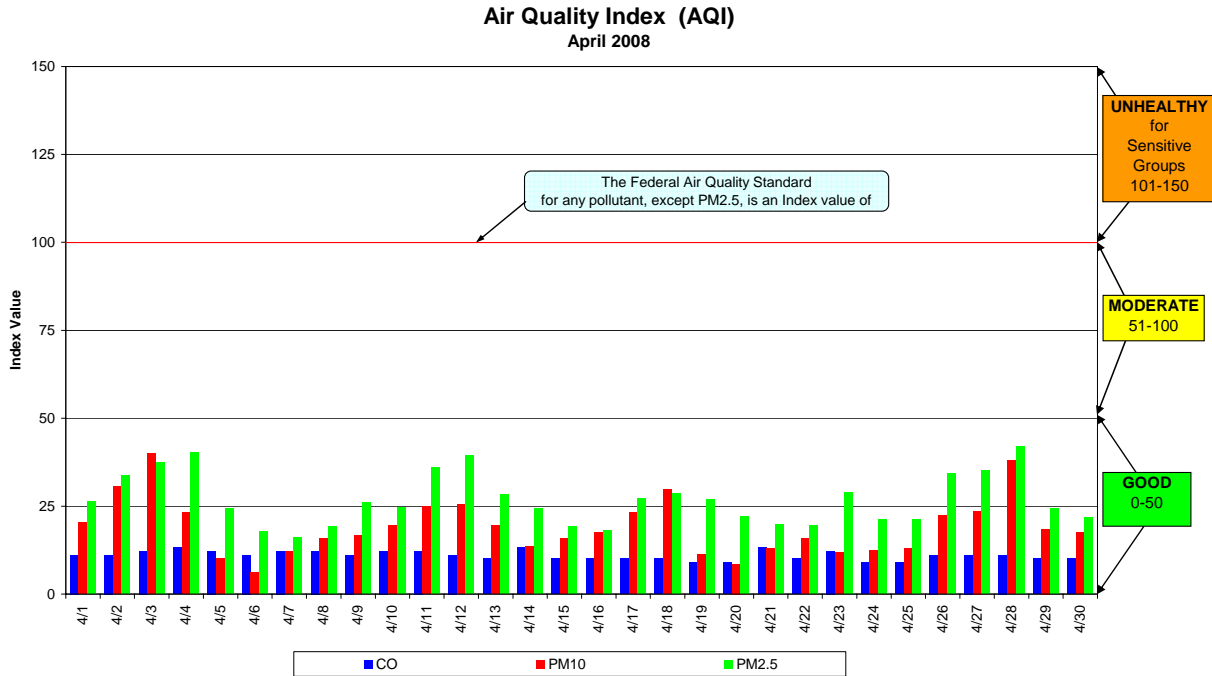


# Spokane Regional Clean Air Agency Air Quality Report April 2008

The chart below shows the daily maximum Air Quality Index (AQI) for April 2008. Carbon Monoxide (CO), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and ozone (O<sub>3</sub>) are the criteria air pollutants defined by the US EPA that are monitored in the Spokane area. Air quality information is updated hourly on the Spokane Regional Clean Air Agency (SRCAA) web page ([http://www.spokanecleanair.org/air\\_quality.asp](http://www.spokanecleanair.org/air_quality.asp)). There were no measured exceedances of federal air quality standards so far this year. Ozone monitoring ended September 30, 2007 and will resume May 1, 2008.



The following table contains the maximum AQI values for each pollutant for the current month and to date for the year. A table summarizing the daily AQIs by category follows on the next page.

### Maximum AQI values and pollutant concentrations for this reporting period

Pollutant	AQI/Concentration	Location	Date
CO	13/1.2 ppm	3 <sup>rd</sup> & Washington	4/4, 4/14 and 4/21/08
PM <sub>10</sub>	40/43 µg/m <sup>3</sup>	Freya & Ferry	4/3/08
PM <sub>2.5</sub>	42/12.9 µg/m <sup>3</sup>	Monroe & College	4/28/08

### Maximum AQI values and pollutant concentrations to date

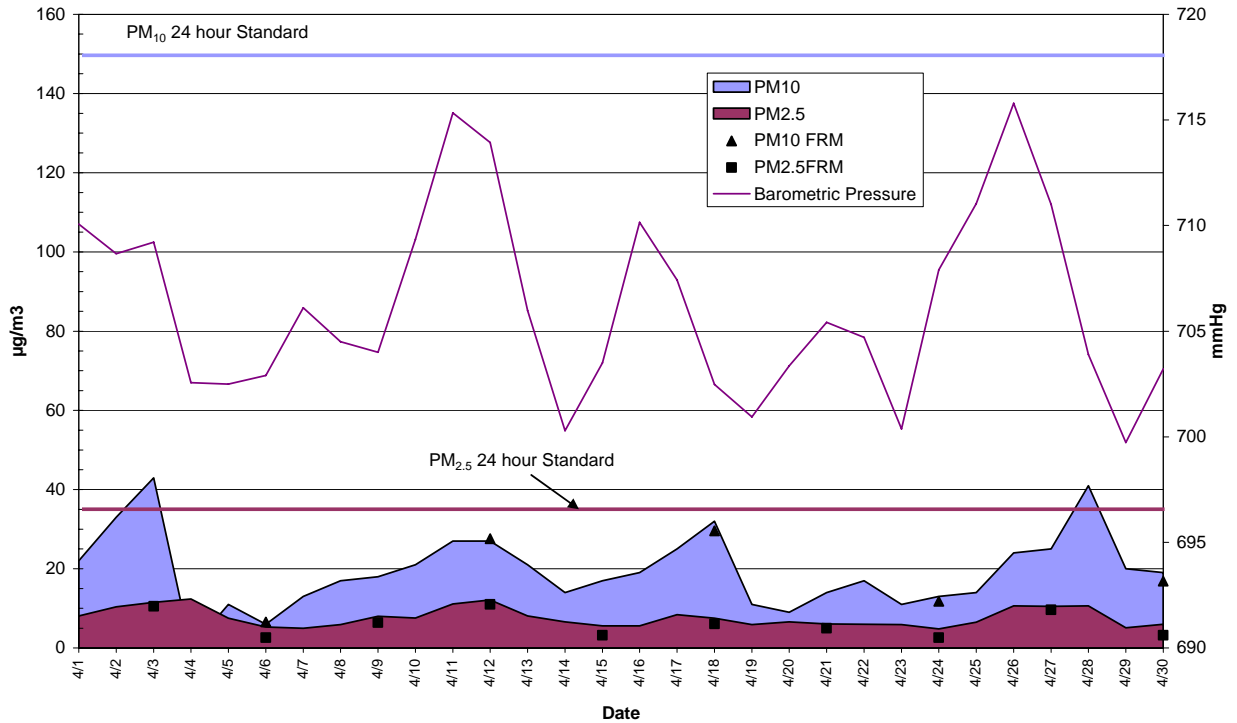
Pollutant	AQI/Concentration	Location	Date
CO	26/2.3 ppm	3 <sup>rd</sup> & Washington	2/22/08
PM <sub>10</sub>	67/88 µg/m <sup>3</sup>	Freya & Ferry	2/19/08
PM <sub>2.5</sub>	82/31.4 µg/m <sup>3</sup>	Freya & Ferry	1/25/08

**AQI Summary as of April 30, 2008**

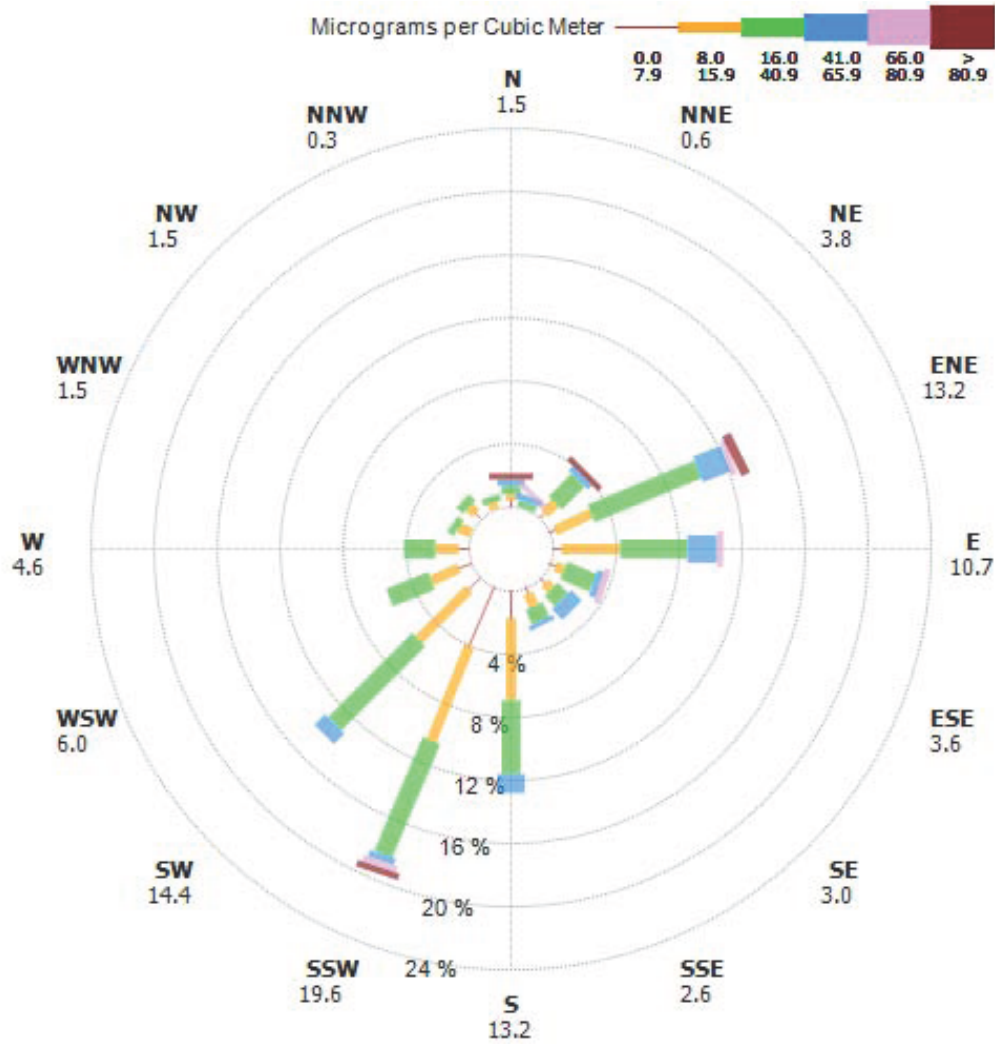
Category	Number of Days This Year	Last Year to Date
Good (0-50)	103	105
Moderate (51-100)	18	15
Unhealthy for Sensitive Groups (101-150)	0	0
Unhealthy (151-200)	0	0
Very Unhealthy (201-300)	0	0
Hazardous (>300)	0	0

The next chart compares the mass concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> measured at the Freya & Ferry monitoring site. The site is located in a commercial/light industrial area on the eastern side of the City of Spokane. The data shown in solid colors were obtained using Tapered Element Oscillating Microbalance (TEOM) continuous analyzers. The TEOM is an automated method and provides “real time” data, which SRCAA uses in its day-to-day programs, e.g., air quality forecasting and burning curtailment. The manually-operated Federal Reference Method (FRM) is the “gold-standard” for measurement of the 24-hour average particulate matter concentration and meets the requirements for demonstrating attainment of federal air quality standards. The accuracy of the TEOM sample data can be verified by comparison with co-located FRM data. The correlation ( $r^2$ ) between the TEOM and FRM data for April was 0.99 for both PM<sub>10</sub> and PM<sub>2.5</sub>.

**Freya & Ferry Particulate Matter Data  
24hr Average Daily Maximum**

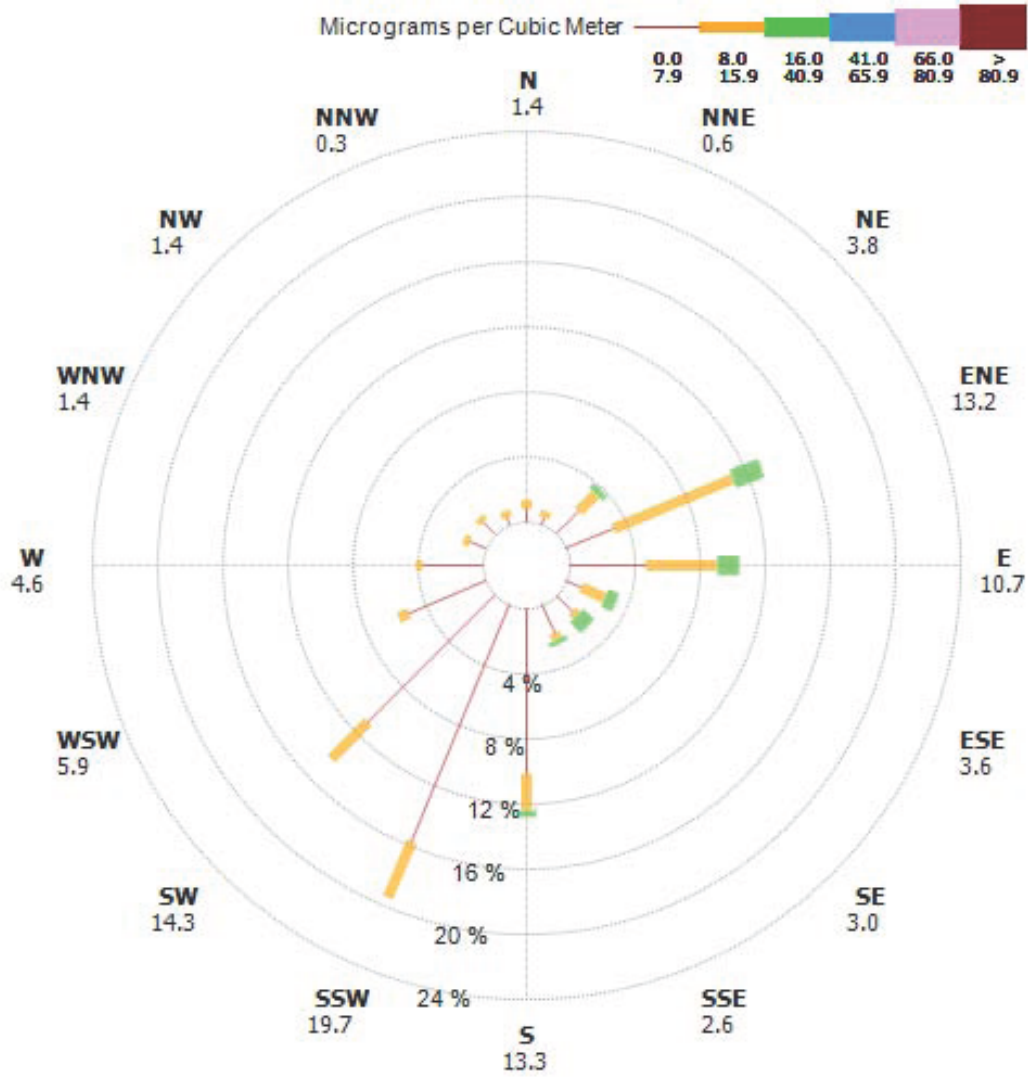


The following graphs attempt to show the relationship between wind direction and pollution concentration. The pollution rose below summarizes hourly average PM<sub>10</sub> concentrations (µg/m<sup>3</sup>) and hourly average wind directions (degrees) measured at the Freya and Ferry Site in April.



**Hour Average Pm10 Team**  
 Spokane E Ferry ~ 689 Observations  
 01 Apr 2008 through 30 Apr 2008

The pollution rose below summarizes hourly average PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) and hourly average wind directions (degrees) measured at the Freya and Ferry Site in April.



**Hour Average Pm2.5 Teom**  
Spokane E Ferry ~ 691 Observations  
01 Apr 2008 through 30 Apr 2008

The table below summarizes the air quality data for April from all of the analyzers operated in Spokane County. The CO data are 8-hour maximums in parts per million (ppm) and the PM data are 24-hour averages in micrograms per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ). There are no data for Turnbull NWR after 4/6/08 because of a power supply problem.

Date	CO 3rd & Washington (ppm)	PM10 Freya & Ferry TEOM ( $\mu\text{g}/\text{m}^3$ )	PM10 Freya & Ferry FRM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Freya & Ferry TEOM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Freya & Ferry FRM ( $\mu\text{g}/\text{m}^3$ )	PM10 Monroe & College TEOM ( $\mu\text{g}/\text{m}^3$ )	PM10 Monroe & College FRM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Monroe & College TEOM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Monroe & College FRM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Monroe & Wellesley Nephelometer ( $\mu\text{g}/\text{m}^3$ )	PM10 Turnbull Wildlife Refuge FRM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Turnbull Wildlife Refuge ( $\mu\text{g}/\text{m}^3$ )	PM10 Liberty Lake ( $\mu\text{g}/\text{m}^3$ )	PM10-2.5 Liberty Lake ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Liberty Lake ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Deer Park TEOM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Spokane Valley TEOM ( $\mu\text{g}/\text{m}^3$ )	PM2.5 Airway Heights TEOM ( $\mu\text{g}/\text{m}^3$ )
4/1	1	22		8.1		13.7		7		8.6						7.7	7.6	6.1
4/2	1	33		10.4		18.6		8.1		6.5						7.8	9.9	8.5
4/3	1.1	43		11.5	10.5	35.3				7.7						9.7	9.5	8
4/4	1.2			12.4		25.1				6.9						9.1	7.7	7.2
4/5	1.1	11		7.5		10.8		6.8		4.8						6.3	5.5	4.2
4/6	1	6	7	5.3	2.6	6.6	5	5.5	2.8	3	4		8.1	5.5	2.6	5.5	5	4.4
4/7	1.1	13		5		6.4		4.4		2.4						6.2	3.5	3.9
4/8	1.1	17		5.9		8.6		5.9		3.5						5.4	5.1	4.1
4/9	1	18		8	6.4	9.8		6.8		5.6						5.3	5.9	4.6
4/10	1.1	21		7.6		13.6		6.4		5.2						9	7.3	6
4/11	1.1	27		11.1		17.9		9.5		9.3						10.7		
4/12	1	27	28	12.1	11.0	24.8	27	12	10.9	12.6			18.9	11.9	7.0	13.9	11.9	10.0
4/13	0.9	21		8.1		18.1		8.7		8.3						13.9	9.1	7.1
4/14	1.2	14		6.6		14.5		7.5		5.3						5.9	4.7	4.8
4/15	0.9	17		5.6	3.2	12.2		5.9		3.2							4.6	4.4
4/16	0.9	19		5.6		11		5.1		3.7						7.1	6.0	4.9
4/17	0.9	25		8.4		18.7		7.7		6.8						9.4	8.4	6.9
4/18	0.9	32	30	7.5	6.1	23.3	23	8.8	5.5	6.2			26.0	20.4	5.6	7.9	7.6	7.1
4/19	0.8	11		5.9		12.1		8.3		5.4						6.2	6.5	4.9
4/20	0.8	9		6.6		9.2		6.8		6.2						8.5	7.2	6.8
4/21	1.2	14		6.1	5.0	8.6		5.9		6.1						7.8	6.2	4.3
4/22	0.9	17		6		11.1		5.7		4						7.1	4.8	4.0
4/23	1.1	11		5.9		12.7		8.9		4.5						6.5	6.7	5.3
4/24	0.8	13	12	4.8	2.6	13.3	8	6.5	2.2	2.8			8.9	6.9	2.0	4.3	4.2	4.1
4/25	0.8	14		6.5		13.9		6.4		4.3						7.4	6.3	5.7
4/26	1	24		10.6		21.4		9.4		10						11.7	12.0	8.8
4/27	1	25		10.5	9.6	25.5		10.8		11.4						12.2	11.6	9.9
4/28	1	41		10.6		33.7		12.9		8.7						10.4	10.1	9.2
4/29	0.9	20		5.1		14.7		7.5		4						4.6	3.9	4.7
4/30	0.9	19	17	6	3.2	15.8	9	6.7	2.9	3.5			12.3	9.6	2.6	7.5	6.4	5.4