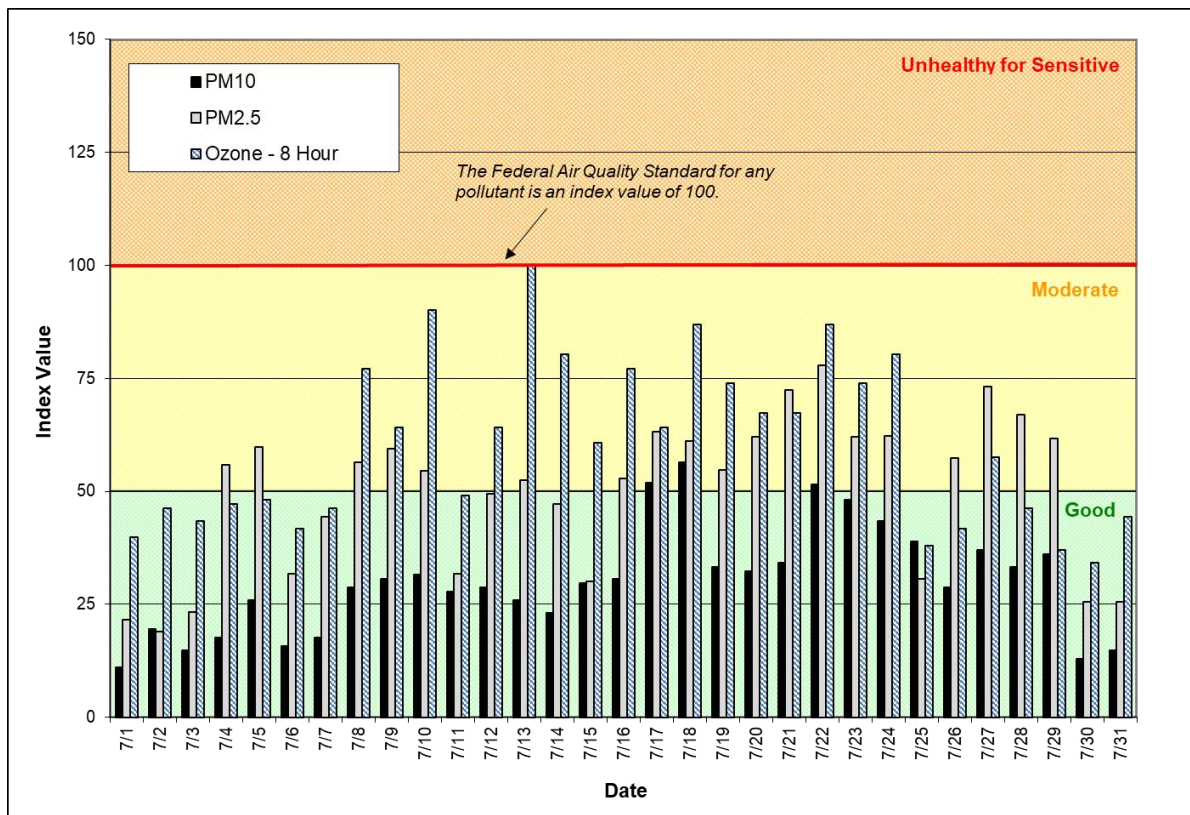


Spokane Regional Clean Air Agency Air Quality Report - July 2024

A heat wave associated with a persistent high-pressure ridge dominated the region’s weather for much of July. The hot, dry, and sunny conditions combined with moderate amounts of smoke from regional wildfires which included the Pioneer Fire near Lake Chelan and the Swawilla Fire east of Grand Coulee, led to elevated levels of ozone and particle pollution. Ozone was the predominant air pollutant on 23 days and was responsible for the highest Air Quality Index (AQI) value recorded in July (**Figure 1**). The maximum AQI was 100 (“Moderate” air quality, 8-hour ozone concentration = 0.070 ppm), which was recorded on the 13th at Greenbluff (**Table 1**, page 4). The AQI threshold for “Unhealthy for Sensitive Groups” is 101. Ozone pollution recorded at Greenbluff and Turnbull remained at AQI-Moderate levels on most days between July 8th and 24th (**Figure 2**), which coincided with the heat wave (**Figure 3**).

The maximum PM_{2.5}-based daily AQI was 78 (“Moderate” air quality, 24-hour average mass concentration = 23.5 µg/m³), recorded on the 22nd at Spokane-Sprague & Haven (**Figure 4**). The maximum daily PM₁₀-based AQI value reported by the Agency’s network of reference-grade monitors was 56 (“Moderate” air quality, 24-hour average mass concentration = 66 mg/m³) on the 18th at the Spokane-Augusta & Fiske station (**Figure 5**). A “low-cost” PM₁₀ sensor (QuantAQ MODULAIR-PM) that the Agency is testing at the Airway Heights-12th & Lawson station recorded a daily AQI of 68

Figure 1: Daily Air Quality Index (AQI) values for July 2024. The data represent the maximum AQI values across all monitoring stations within Spokane County. Air pollutants monitored in Spokane County by Spokane Regional Clean Air Agency and the Washington State Department of Ecology are represented: PM₁₀, PM_{2.5}, and ozone. “Low-cost” sensor PM_{2.5} and PM₁₀ data are not represented here.



(“Moderate” air quality, 24-hour average mass concentration = $89 \mu\text{g}/\text{m}^3$) on the 17th. Dust entrained by thunderstorm outflow winds in the Columbia Basin (as reported near Ritzville) likely contributed to elevated PM_{10} readings in the Spokane area on the night of the 17th and early morning of the 18th.

Figure 2: Eight-hour maximum ozone concentrations for the Spokane region in July. (Spokane-Greenbluff and Cheney-Turnbull air monitoring stations).

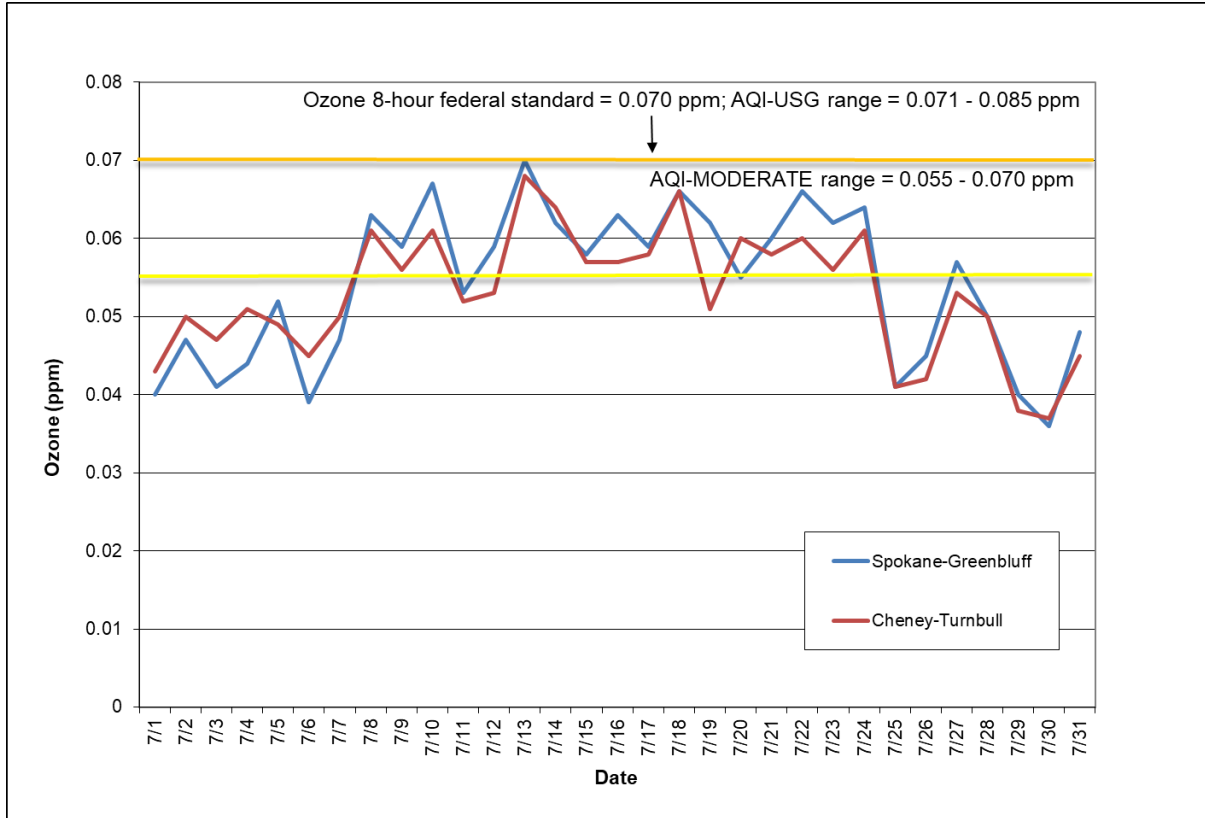


Figure 3: Daily high and low air temperatures recorded at Spokane International Airport (KGEK) in July 2024 versus 30-year (1991-2020) averages or “normals” and historical daily maximum and minimum temperatures (National Weather Service).

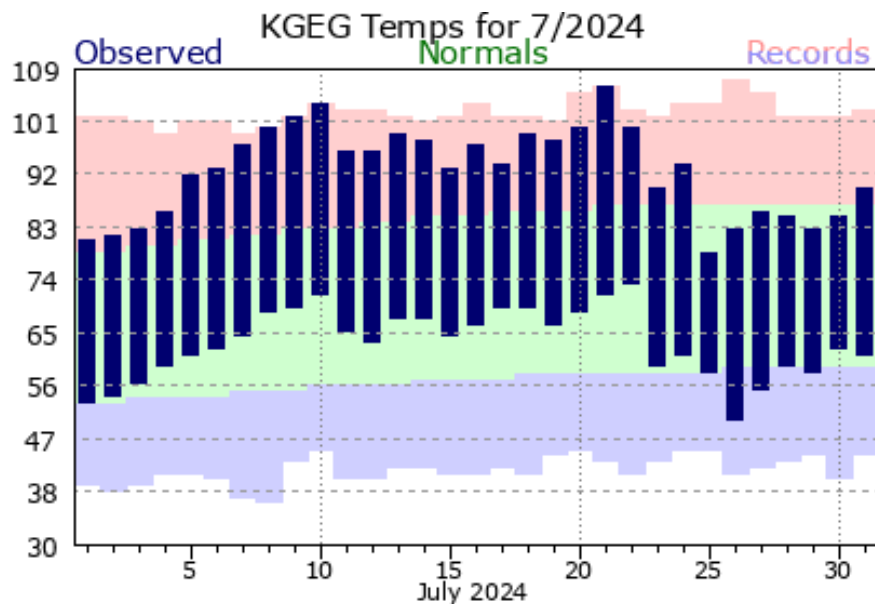


Figure 4: Daily 24-hour average PM_{2.5}, all Spokane County monitoring stations, July 2024. Data depicted using dashed lines were collected using “low-cost” sensors.

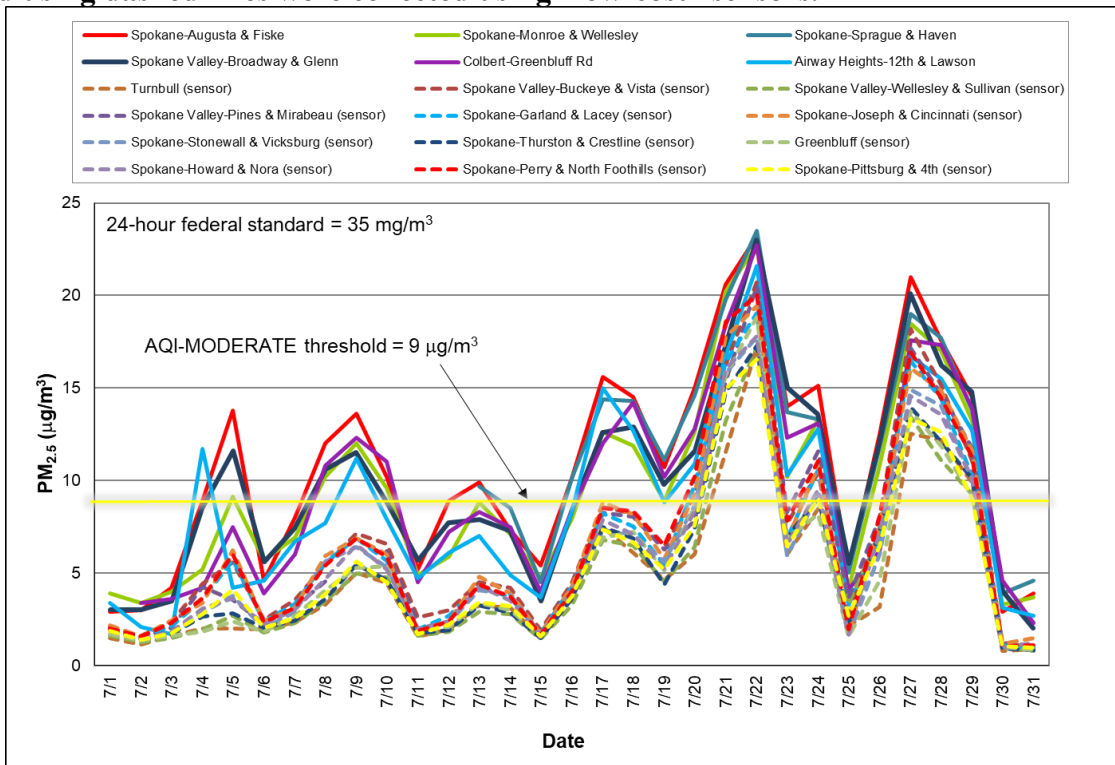
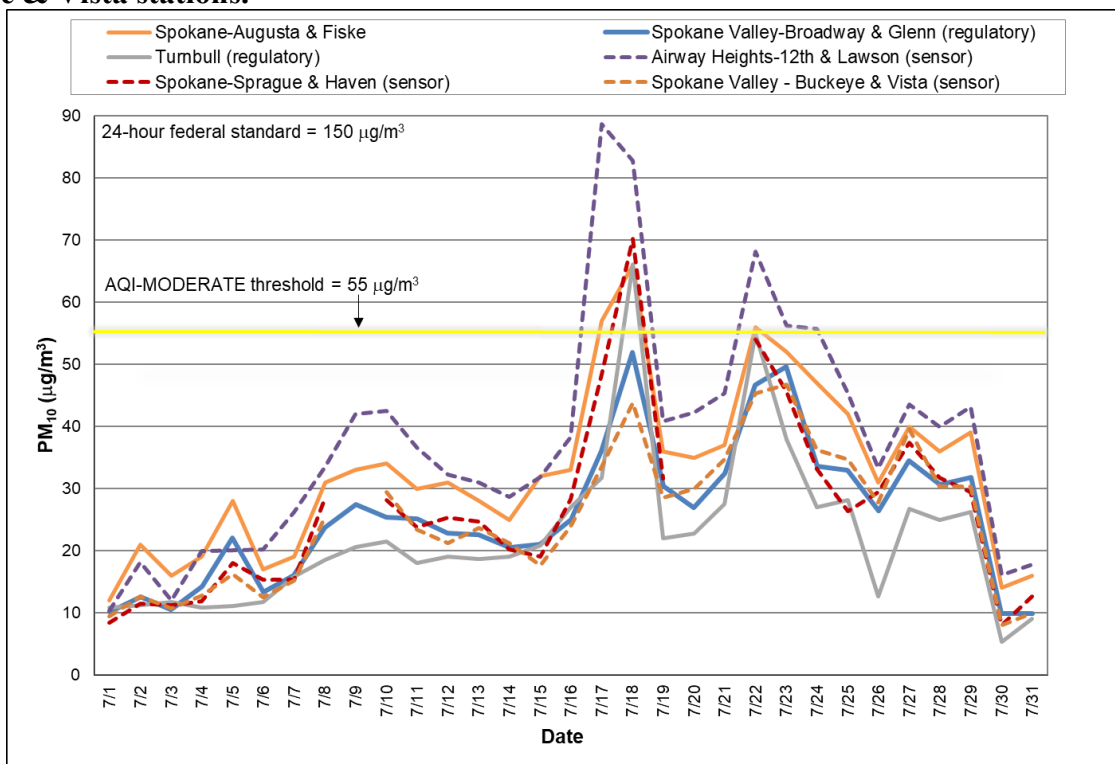


Figure 5: Daily 24-hour average PM₁₀, all Spokane County monitoring stations, July 2024. “Low-cost” sensor data are shown here using dashed lines. The Agency is testing low-cost PM₁₀ sensors at the Airway Heights-12th & Lawson, Spokane-Sprague & Haven, and Spokane Valley-Buckeye & Vista stations.



Ozone and PM_{2.5} concentrations recorded in July are the highest in 2024 to date (**Table 2**). The AQI was in the “Moderate” category on 22 days and “Good” on 9 days (**Table 3**). As of the end of July, AQI totals for 2024 were 186 Good air quality days and 27 Moderate.

Table 1: Maximum AQI values and pollutant concentrations for this reporting period.

The highest daily PM₁₀ reading for the month was recorded by a QUANT-AQ “low-cost” sensor at the Airway Heights station. PM₁₀ data generated by the Airway Heights sensor and the reference-grade monitor at Spokane-Augusta & Fiske are included here. Sensor data are not counted in AQI category tallies in Table 3.

Pollutant	AQI		Location	Date
Ozone	100 (conc. = 0.070 ppm)	Moderate	Greenbluff	7/13
PM ₁₀	56 (mass conc. = 66 µg/m ³)	Moderate	Spokane – Augusta & Fiske	7/18
	68 (mass conc. = 89 µg/m ³)	Moderate	Airway Heights (sensor)	7/17
PM _{2.5}	78 (conc. = 23.5 µg/m ³)	Moderate	Spokane – Sprague & Haven	7/22

Table 2: Maximum AQI values and pollutant concentrations this year.

Pollutant	AQI		Location	Date
Ozone	100 (conc. = 0.070 ppm)	Moderate	Greenbluff	7/13
PM ₁₀	70 (mass conc. = 94 µg/m ³)	Moderate	Spokane – Augusta & Fiske	5/16
PM _{2.5}	78 (conc. = 23.5 µg/m ³)	Moderate	Spokane – Sprague & Haven	7/22

Table 3: AQI summary, July 2024

Category	Number of days in July	Number of days this year to date
Good (0-50)	9	186
Moderate (51-100)	22	27
Unhealthy for Sensitive Groups (101-150)	0	0
Unhealthy (151-200)	0	0
Very Unhealthy (201-300)	0	0
Hazardous (>300)	0	0

A summary of the current federal air quality standards is provided in **Appendix 1**, an explanation of the AQI is provided in **Appendix 2**, and a summary of daily ozone, PM_{2.5}, and PM₁₀ mass concentrations and AQIs across the Spokane-area ambient air monitoring network is provided in **Appendix 3**.

Appendix 1 – National Ambient Air Quality Standards

The Clean Air Act requires EPA to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants, carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), ground-level ozone (O₃) and sulfur dioxide (SO₂; Table A-1). These are known as “criteria” pollutants because the US EPA established regulatory limits to concentrations in ambient air using human health or environmentally based criteria. Carbon monoxide, particulate matter and ozone are monitored in Spokane County by the Spokane Regional Clean Air Agency (SRCAA) and the Washington State Department of Ecology (Ecology).

Table A-1: National Ambient Air Quality Standards

Pollutant [links to historical tables of NAAQS reviews]		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		primary and secondary	Rolling 3 month period	0.15 µg/m ³ (1)	Not to be exceeded
Nitrogen Dioxide (NO₂)		primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary and secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O₃)		primary and secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	PM _{2.5}	primary	1 year	9.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO₂)		primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m³ as a calendar quarter average) also remain in effect. (2) The level of the annual NO₂ standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level. (3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O₃ standards additionally remain in effect in some areas. Revocation of the previous (2008) O₃ standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards. (4) The previous SO₂ standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (a) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (b) any area for which implementation plans providing for attainment of the current (2010) standard have not been submitted and approved and which is designated nonattainment under the previous SO₂ standards or is not meeting the requirements of a SIP call under the previous SO₂ standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the require NAAQS.

Appendix 2 – Air Quality Index

The Air Quality Index (AQI) is EPA’s color-coded tool for communicating daily air quality to the public and can be calculated for any of the criteria pollutants except lead, provided monitoring data are available. An index value above 100 indicates that the concentration of a criteria pollutant exceeded the limit established in the NAAQS. Categories of the AQI are “Good” (green, 0-50), “Moderate” (yellow, 51-100), “Unhealthy for Sensitive Groups” (USG; orange, 101-150), “Unhealthy” (red, 151-200), “Very Unhealthy” (purple, 201-300) and “Hazardous” (maroon, 301-500; Table A-2). The PM_{2.5} breakpoints were updated when the new annual PM_{2.5} standard went into effect on May 6th.

Table A-2: Air pollutant breakpoints for the Air Quality Index.

Air Quality Index Levels of Health Concern	Color Code	Index Numerical Value	Breakpoints				Health Effects
			O ₃ (ppm) 8-hour	PM _{2.5} (µg/m ³) 24-hour	PM ₁₀ (µg/m ³) 24-hour	CO (ppm) 8-hour	
Good	Green	0-50	0.000-0.054	0.0-9.0	0-54	0.0-4.4	Air quality is considered satisfactory and air pollution poses little or no risk.
Moderate	Yellow	51-100	0.055-0.070	9.1-35.4	55-154	4.5-9.4	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution.
Unhealthy for Sensitive Groups	Orange	101-150	0.071-0.085	35.5-55.4	155-254	9.5-12.4	People especially sensitive to air pollution may experience health effects. The general public is not likely to be affected. An AQI in this category or above indicates that air pollution exceeds levels acceptable under federal air quality standards.
Unhealthy	Red	151-200	0.086-0.105	55.5-125.4	255-354	12.5-15.4	Everyone may begin to experience health effects; members of sensitive groups may experience more serious health effects.
Very Unhealthy	Purple	201-300	0.106-0.200	125.5-225.4	355-424	15.5-30.4	Health alert: everyone may experience more serious health effects.
Hazardous	Maroon	>300	0.201 to the Significant Harm Level* (0.600 ppm, 2 hour average)	225.5+	425+	30.5+	Health warnings of emergency conditions. The entire population is more likely to be affected.

*The significant harm level (SHL) is set at a level that represents imminent and substantial endangerment to public health.

Appendix 3

Table A-3(1): July summary air quality data for air monitoring stations in Spokane County. Ozone is reported as the daily maximum running 8-hour average in parts per million (ppm) and particulate matter mass concentration is reported as 24-hour averages in micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$). The $\text{PM}_{2.5}$ monitor at Spokane-Sprague & Haven was offline for a background (zero) calibration until the 13th.

Date	Pollutant Concentration																									
	Ozone (ppm) Max 8-Hour Avg	$\text{PM}_{2.5}$ ($\mu\text{g}/\text{m}^3$) 24-Hour Avg															PM_{10} ($\mu\text{g}/\text{m}^3$) 24-Hour Avg									
	Ozone - Turnbull NWR	Ozone - Greenbluff	$\text{PM}_{2.5}$ - Airway Heights, 12th & Lawson	$\text{PM}_{2.5}$ - Colbert, E Greenbluff Rd	$\text{PM}_{2.5}$ - Spokane, Augusta & Fiske	$\text{PM}_{2.5}$ - Spokane, Monroe & Wellesley	$\text{PM}_{2.5}$ - Spokane, Sprague & Haven	$\text{PM}_{2.5}$ - Spokane Valley, Broadway & Glenn	$\text{PM}_{2.5}$ - Spokane, Garland & Lacey (sensor)	$\text{PM}_{2.5}$ - Spokane, Howard & Nora (sensor)	$\text{PM}_{2.5}$ - Spokane, Joseph & Cincinnati (sensor)	$\text{PM}_{2.5}$ - Spokane, Perry & North Foothills (sensor)	$\text{PM}_{2.5}$ - Spokane, Thurston & Crestline (sensor)	$\text{PM}_{2.5}$ - Spokane, Pittsburg & 4th (sensor)	$\text{PM}_{2.5}$ - Spokane, Stonewall & Vicksburg (sensor)	$\text{PM}_{2.5}$ - Spokane Valley, Buckeye & Vista (sensor)	$\text{PM}_{2.5}$ - Spokane Valley, Pines & Mirabeau (sensor)	$\text{PM}_{2.5}$ - Spokane Valley, Wellesley & Sullivan (sensor)	$\text{PM}_{2.5}$ - Greenbluff (sensor)	$\text{PM}_{2.5}$ - Turnbull NWR (sensor)	PM_{10} - Spokane, Augusta & Fiske	PM_{10} - Spokane Valley, Broadway & Glenn	PM_{10} - Turnbull NWR	PM_{10} - Airway Heights, 12th & Lawson (sensor)	PM_{10} - Spokane, Sprague & Haven (sensor)	PM_{10} - Spokane Valley, Buckeye & Vista (sensor)
7/1	0.043	0.040	3.4		2.9	3.9		3.0	2.0	1.9	2.2	2.0	1.9	1.9	1.9	2.0	2.1	1.6	1.7	1.5	12	10	11	10	8	9
7/2	0.050	0.047	2.1	3.4	3.0	3.4		3.0	1.6	1.4	1.6	1.6	1.4	1.4	1.4	1.6	1.5	1.3	1.4	1.1	21	13	11	18	12	13
7/3	0.047	0.041	1.7	3.6	4.2	4.0		3.5	2.1	1.8	2.4	2.3	1.7	1.7	1.8	2.4	2.0	1.5	1.6	1.6	16	11	12	12	11	11
7/4	0.051	0.044	11.7	4.2	8.9	5.2		8.5	3.5	3.1	3.4	3.6	2.7	2.8	2.9	4.4	4.2	2.0	1.8	2.0	19	14	11	20	12	13
7/5	0.049	0.052	4.2	7.5	13.8	9.1		11.6	5.7	3.6	6.2	6.0	2.8	4.1	3.8	5.6	3.5	2.7	2.4	2.0	28	22	11	20	18	16
7/6	0.045	0.039	4.6	3.9	4.6	5.7		5.6	2.4	2.2	2.4	2.4	2.0	2.0	2.0	2.5	2.3	1.8	1.8	1.9	17	13	12	20	15	13
7/7	0.050	0.047	6.7	6.0	8.0	6.9		7.4	3.3	3.1	3.1	3.1	2.4	2.6	2.9	3.6	3.2	2.3	2.7	2.3	19	16	16	26	15	15
7/8	0.061	0.063	7.7	10.8	12.0	10.2		10.6	5.6	4.7	5.9	5.4	3.6	3.9	5.6	5.5	4.5	3.5	4.1	3.3	31	24	19	34	29	26
7/9	0.056	0.059	11.2	12.3	13.6	12.0		11.5	6.9	6.5	6.9	6.9	5.4	5.6	6.4	7.2		5.0	5.3	5.0	33	27	21	42		
7/10	0.061	0.067	7.9	11.0	10.2	9.6		8.8	5.7	5.2	6.0	5.9	4.6	4.5	5.3	6.6	6.2	4.8	5.4	4.5	34	25	22	43	28	29
7/11	0.052	0.053	4.7	4.5	5.2	4.9		5.7	1.9	2.0	1.8	1.9	1.7	1.7	1.7	2.6	2.3	1.6	2.0	1.6	30	25	18	37	24	23
7/12	0.053	0.059	6.1	7.2	8.9	5.9		7.7	2.7	2.4	2.4	2.4	1.9	2.2	2.3	3.0		1.8	2.1	2.0	31	23	19	32	25	21
7/13	0.068	0.070	7.0	8.3	9.9	8.8	9.7	7.9	4.3	4.3	4.8	4.4	3.3	3.4	4.1	4.5		2.9	3.4	3.2	28	23	19	31	25	24
7/14	0.064	0.062	4.9	7.5	7.3	7.1	8.5	7.3	3.7	3.5	3.9	3.7	2.9	3.2	3.8	4.2		2.8	3.0	3.1	25	21	19	29	20	21
7/15	0.057	0.058	3.7	4.0	5.4	4.7	4.5	3.5	1.7	1.7	1.8	1.6	1.5	1.6	1.7	1.9		1.4	1.6	1.5	32	21	21	32	19	18
7/16	0.057	0.063	8.3	8.4	10.1	7.9	10.1	8.4	4.3	4.0	4.2	4.0	3.6	3.7	3.9	4.5	3.9	3.2	4.0	4.1	33	25	27	38	28	24
7/17	0.058	0.059	15.0	12.0	15.6	12.6	14.4	12.6	8.2	7.9	8.8	8.5	7.5	7.3	7.3	8.6	8.3	6.8	6.9	7.5	57	36	32	89	48	34
7/18	0.066	0.066	12.7	14.2	14.5	11.9	14.3	12.9	7.5	7.1	8.2	8.3	6.9	6.6	7.1	8.2	8.1	6.5	7.2	6.1	66	52	66	83	70	44
7/19	0.051	0.062	8.8	10.2	10.7	8.9	11.1	9.8	5.4	5.2	5.7	6.5	4.4	5.2	5.6	6.4	6.3	4.5	5.1	4.6	36	30	22	41	32	29
7/20	0.060	0.055	10.9	12.8	15.0	12.6	14.6	11.6	9.8	8.3	9.3	10.2	7.4	7.6	8.6	9.2	7.8	6.4	8.6	6.0	35	27	23	42		30
7/21	0.058	0.060	16.7	18.4	20.6	20.2	19.8	17.2	16.4	16.0	17.7	18.6	14.8	14.9	15.8	16.2	15.4	13.2	15.7	11.5	57	37	33	28	45	35
7/22	0.060	0.066	21.6	22.7	23.2	22.7	23.5	23.0	19.1	17.8	19.4	20.0	17.3	16.6	17.8	20.7	20.5	17.3	18.9	17.2	56	47	55	68	54	45
7/23	0.056	0.062	10.3	12.3	14.0	10.2	13.7	15.0	6.9	6.5	6.8	7.8	6.9	6.5	5.9	7.7	8.3	6.8	6.9	6.0	52	50	38	56	46	47
7/24	0.061	0.064	12.8	13.1	15.1	13.3	13.3	13.6	10.6	9.5	10.8	11.1	9.1	9.0	9.3	10.4	11.6	9.1	8.2	8.5	47	34	27	56	33	36
7/25	0.041	0.041	3.3	4.1	5.1	4.1	5.0	5.5	1.8	1.6	1.7	2.0	2.1	2.7	1.6	2.6	3.6	3.4	1.6	2.1	42	33	28	45	26	35
7/26	0.042	0.045	6.9	6.2	12.5	10.8	11.8	12.0	7.3	7.2	7.6	8.1	7.3	6.4	6.0	8.0	8.0	7.1	4.6	3.2	31	26	13	33	29	28
7/27	0.053	0.057	16.7	17.6	21.0	18.5	19.0	20.1	16.5	14.5	16.1	16.9	13.9	13.3	14.9	18.2	17.2	13.5	13.8	12.5	40	35	27	44	37	40
7/28	0.050	0.050	15.5	17.3	17.6	17.0	17.7	16.2	14.4	13.6	14.8	14.5	12.1	12.6	14.0	15.2	14.7	11.1	11.9	12.2	36	31	25	40	32	30
7/29	0.038	0.040	12.7	13.9	14.5	13.2	13.8	14.8	10.2	10.1	11.6	11.3	10.1	9.0	10.0	11.1	11.8	9.3	9.1	9.9	39	32	26	43	29	30
7/30	0.037	0.036	3.1	4.6	2.9	3.3	3.9	4.0	1.1	1.0	1.2	1.1	0.9	1.0	1.0	1.1	1.2	1.0	1.0	0.8	14	9	5	16	8	8
7/31	0.045	0.048	2.7	2.3	3.9	3.7	4.6	2.0	1.0	1.2	1.5	1.1	0.8	1.0	1.1	1.1	1.1	0.8	0.8	0.9	16	9	9	18	13	10
AVG	0.053	0.054	8.6	9.5	10.8	9.4	12.3	9.8	6.2	5.8	6.5	6.5	5.3	5.4	5.7	6.7	6.9	5.1	5.3	4.8	33	26	22	38	27	25
MAX	0.068	0.070	21.6	22.7	23.2	22.7	23.5	23.0	19.1	17.8	19.4	20.0	17.3	16.6	17.8	20.7	20.5	17.3	18.9	17.2	66	52	66	89	70	47

Table A-3(2): July summary Air Quality Index (AQI) data for air monitoring stations in Spokane County.
See Appendix 2 for more information about the AQI.

Air Quality Index (AQI)																												
Date	Ozone			PM _{2.5}														PM ₁₀										
	Ozone - Turnbull NWR	Ozone - Greenbluff	PM _{2.5} - Airway Heights, 12th & Lawson	PM _{2.5} - Colbert, E Greenbluff Rd	PM _{2.5} - Spokane, Augusta & Fiske	PM _{2.5} - Spokane, Monroe & Wellesley	PM _{2.5} - Spokane, Sprague & Haven	PM _{2.5} - Spokane Valley, Broadway & Glenn	PM _{2.5} - Spokane, Garland & Lacey (sensor)	PM _{2.5} - Spokane, Howard & Nora (sensor)	PM _{2.5} - Spokane, Joseph & Cincinnati (sensor)	PM _{2.5} - Spokane, Perry & North Foothills (sensor)	PM _{2.5} - Spokane, Thurston & Crestline (sensor)	PM _{2.5} - Spokane, Pittsburg & 4th (sensor)	PM _{2.5} - Spokane, Stonewall & Vicksburg (sensor)	PM _{2.5} - Spokane Valley, Buckeye & Vista (sensor)	PM _{2.5} - Spokane Valley, Pines & Mirabeau (sensor)	PM _{2.5} - Spokane Valley, Wellesley & Sullivan (sensor)	PM _{2.5} - Greenbluff (sensor)	PM _{2.5} - Turnbull NWR (sensor)	PM ₁₀ - Spokane, Augusta & Fiske	PM ₁₀ - Spokane Valley, Broadway & Glenn	PM ₁₀ - Turnbull NWR	PM ₁₀ - Airway Heights, 12th & Lawson (sensor)	PM ₁₀ - Spokane, Sprague & Haven (sensor)	PM ₁₀ - Spokane Valley, Buckeye & Vista (sensor)	MAXIMUM	
7/1	40	37	19		16	22		17	11	10	12	11	11	10	11	11	12	9	10	8	11	9	10	10	10	8	9	40
7/2	46	44	12	19	17	19		17	9	8	9	9	8	8	8	9	7	8	6	19	12	10	17	11	12	11	46	
7/3	44	38	9	20	23	22		19	12	10	14	13	9	10	10	13	11	8	9	9	15	10	11	11	10	10	44	
7/4	47	41	56	23	49	29		47	20	17	19	20	15	15	16	25	24	11	10	11	18	12	10	19	11	12	56	
7/5	45	48	23	42	60	51		56	32	20	35	33	16	23	21	31	20	15	13	11	26	15	10	19	17	15	60	
7/6	42	36	26	22	26	32		31	13	12	13	13	11	11	11	14	13	10	10	11	16	12	11	19	14	12	42	
7/7	46	44	37	33	44	38		41	19	17	17	17	14	14	16	20	18	13	15	13	18	14	15	24	14	14	46	
7/8	71	77	43	54	56	53		54	31	26	33	30	20	22	31	30	25	19	23	18	29	24	17	31	26	24	77	
7/9	54	64	55	57	59	56		55	38	36	38	38	30	31	36	40		28	29	28	31		19	39			64	
7/10	71	90	44	55	53	52		49	32	29	33	33	26	25	30	36	34	27	30	25	31	27	20	39	26	27	90	
7/11	48	49	26	25	29	27		32	11	11	10	10	10	10	10	15	13	9	11	9	28	22	17	34	22	22	49	
7/12	49	64	34	40	49	33		43	15	13	13	13	11	12	13	17		10	12	11	29	20	18	30	23	20	64	
7/13	93	100	39	46	52	49	52	44	24	24	27	24	18	19	23	25		16	19	18	26	22	17	29	23	22	100	
7/14	80	74	27	42	41	39	47	41	20	20	22	21	16	18	21	23		15	17	17	23	20	18	27	19	20	80	
7/15	58	61	21	22	30	26	25	19	10	9	10	9	8	9	10	11		8	9	8	30	16	19	30	18	16	61	
7/16	58	77	46	47	53	44	53	47	24	22	24	22	20	21	22	25	22	18	22	23	31	22	25	35	26	22	77	
7/17	61	64	62	56	63	58	61	58	46	44	49	47	42	41	41	48	46	38	38	42	52	31	29	68	45	31	68	
7/18	87	87	58	61	61	56	61	58	42	40	45	46	38	37	39	46	45	36	40	34	56	41	56	65	59	41	87	
7/19	47	74	49	53	54	49	55	52	30	29	32	36	24	29	31	36	35	25	29	26	33	26	20	38	29	26	74	
7/20	67	51	54	58	62	58	61	56	52	46	51	53	41	42	48	51	44	36	48	33	32	28	21	39		28	67	
7/21	61	67	65	68	72	72	71	66	65	64	67	69	62	62	63	64	63	59	63	56	34	32	25	42		32	72	
7/22	67	87	74	76	77	76	78	77	70	67	70	71	66	65	67	73	72	66	69	66	51	42	51	58	51	42	87	
7/23	54	74	53	57	60	53	60	62	38	36	38	44	39	36	33	43	46	38	38	33	48	43	35	52	42	43	74	
7/24	71	80	58	58	62	59	59	54	52	54	55	51	51	51	53	56	51	45	47	44	34	25	51	31	34	80		
7/25	38	38	18	23	28	23	28	31	10	9	10	11	12	15	9	14	20	19	9	12	39	32	26	42	24	32	42	
7/26	39	42	38	34	57	54	56	56	40	40	42	45	40	36	33	44	45	39	26	18	29	26	12	31	27	26	57	
7/27	49	58	65	67	73	69	69	71	65	61	64	66	60	59	62	68	66	59	60	57	37	37	25	40	35	37	73	
7/28	46	46	63	66	67	66	67	64	61	59	62	61	57	58	60	62	61	55	56	57	33	28	23	37	29	28	67	
7/29	35	37	58	60	61	59	60	62	53	53	56	55	53	50	53	55	56	51	51	52	36	28	24	40	27	28	62	
7/30	34	33	17	26	16	18	22	22	6	5	7	6	5	6	6	6	7	5	6	4	13	7	5	15	8	7	34	
7/31	42	44	15	13	22	21	26	11	5	7	8	6	5	5	6	6	6	5	5	5	15	9	8	16	12	9	44	
AVG	55	59	41	44	48	45	53	46	31	29	32	32	27	27	29	33	26	27	25	30	23	20	34	25	23	23	64	
MAX	93	100	74	76	77	76	78	77	70	67	70	71	66	65	67	73	72	66	69	66	56	43	56	68	59	43	100	