

Spokane Regional Clean Air Agency Air Quality Report - November 2024

Strong temperature inversions trapped fine particle pollution (PM_{2.5}) near ground-level from the 7th through the 10th, causing the Air Quality Index (AQI) to reach high-MODERATE and UNHEALTHY FOR SENSITIVE GROUPS (USG) levels (**Figure 1**). The Agency issued a Stage 1 burn ban, which was in effect from 4:00 PM on the 7th until 6:00 AM on the 11th. A Stage 1 burn ban prohibits the use of fireplaces and uncertified (US EPA) wood stoves in the Spokane Smoke Control Zone and prohibits outdoor burning in Spokane County.

Air quality was in the GOOD category on 18 days, MODERATE on 10 days, and UNHEALTHY FOR SENSITIVE GROUPS on 2 days in November (**Table 1**). The highest AQI value for the month (and for the year) was 106, which was recorded on the 9th at the Spokane – Monroe & Wellesley monitoring station (24-hour avg PM_{2.5} mass concentration = 37.7 µg/m³; **Figure 2**; **Tables 2 and 3**). The highest 24-hour PM_{2.5} reading at Spokane Valley – Broadway & Glenn, the sole PM_{2.5} regulatory monitoring station in the network, was 35.3 µg/m³ - narrowly missing exceeding the PM_{2.5} 24-hour National Ambient Air Quality Standard (NAAQS). Some low-cost PM_{2.5} sensors (“SensWAs”) in the Agency’s air monitoring network recorded higher readings, but those are not included in the AQIs reported in Figure 1 and Tables 1-3. The highest PM₁₀-based AQI for the month was 44 (GOOD air quality, 24-hour mass concentration = 48 µg/m³), recorded on the 8th at Spokane-Augusta & Fiske (**Figure 3**).

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 PM_{2.5}, and PM₁₀ mass concentrations and AQIs across the Spokane-area ambient air monitoring network is provided in **Appendix 3**.

Figure 1: Daily Air Quality Index (AQI) values for November 2024. The data represent the maximum AQI values across all monitoring stations within Spokane County. PM₁₀ and PM_{2.5}, monitored year-round in Spokane County, are represented. Ozone is monitored from May 1st through September 30th. “Low-cost” sensor PM_{2.5} and PM₁₀ data are not represented here.

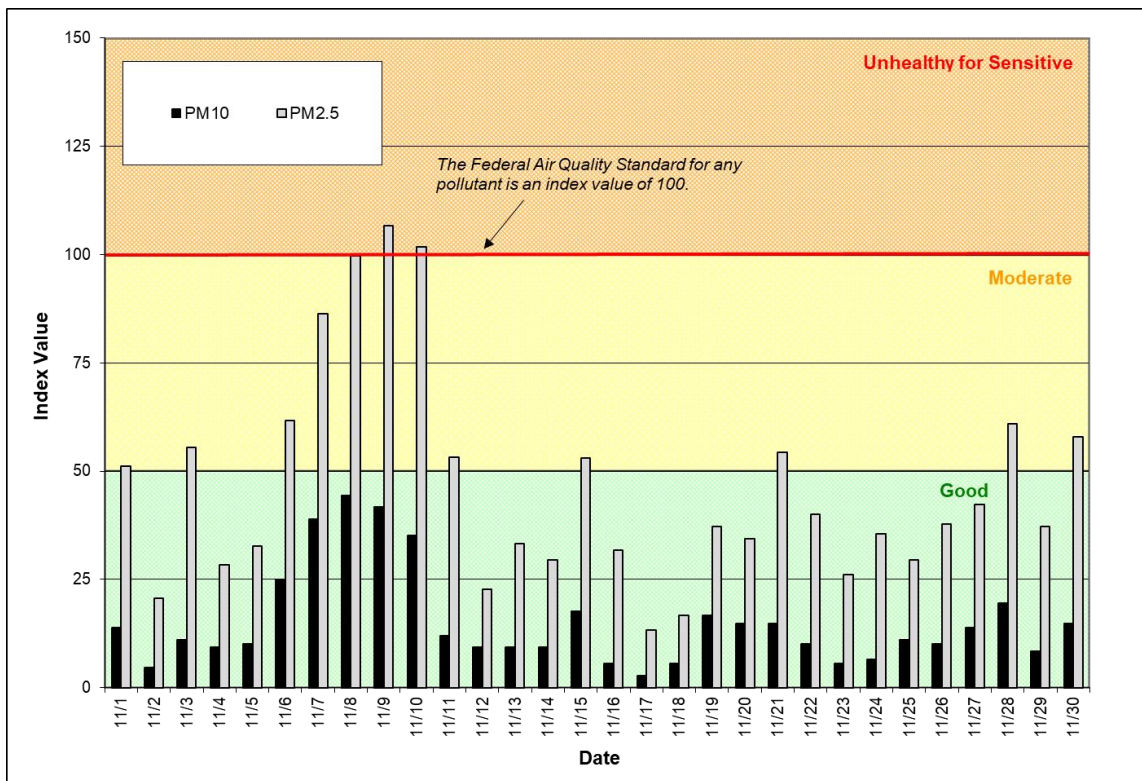


Figure 2: Daily 24-hour average PM_{2.5}, all Spokane County monitoring stations, November 2024. Data plotted using dashed lines were collected using “low-cost” sensors. The Spokane Valley – Broadway & Glenn monitor is the only one used to determine compliance with the National Ambient Air Quality Standards (NAAQS).

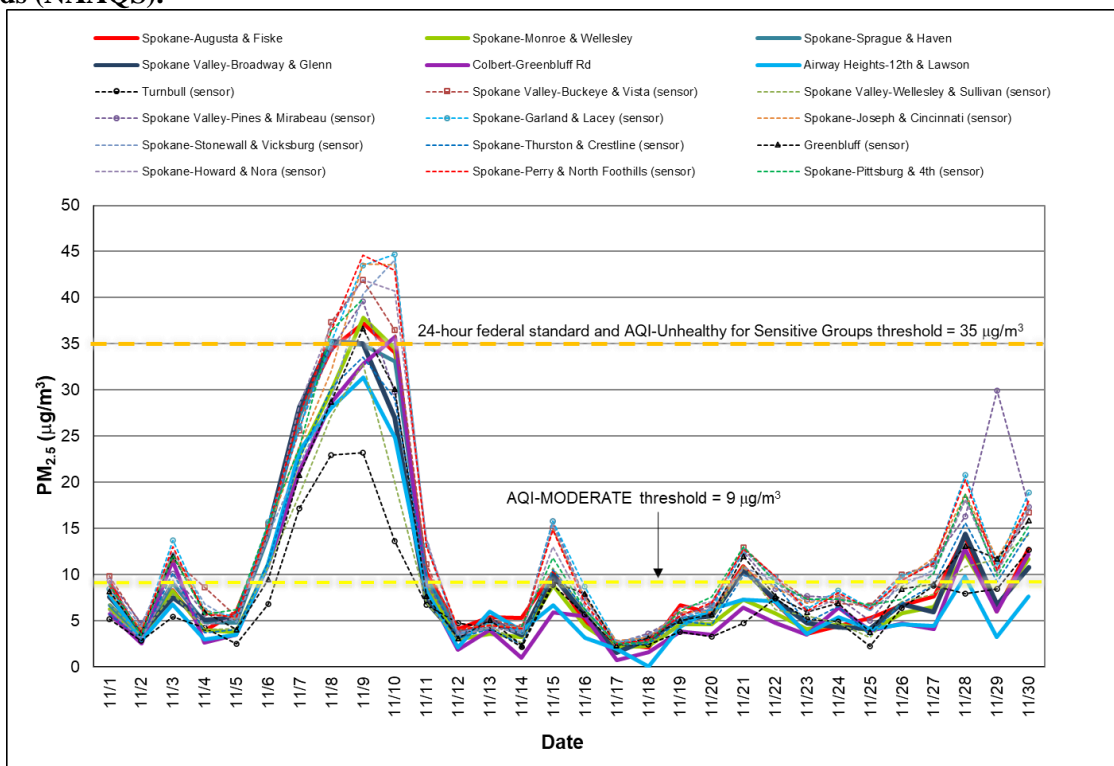


Figure 3: Daily 24-hour average PM₁₀, all Spokane County monitoring stations, November 2024. “Low-cost” sensor data are shown here using dashed lines. Spokane Valley – Broadway & Glenn and Turnbull are used to determine compliance with the NAAQS. The Agency, in cooperation with the Washington State Department of Ecology, is testing low-cost PM₁₀ sensors at the Airway Heights-12th & Lawson, Spokane-Sprague & Haven, and Spokane Valley-Buckeye & Vista stations. Those data are reported in Appendix 3.

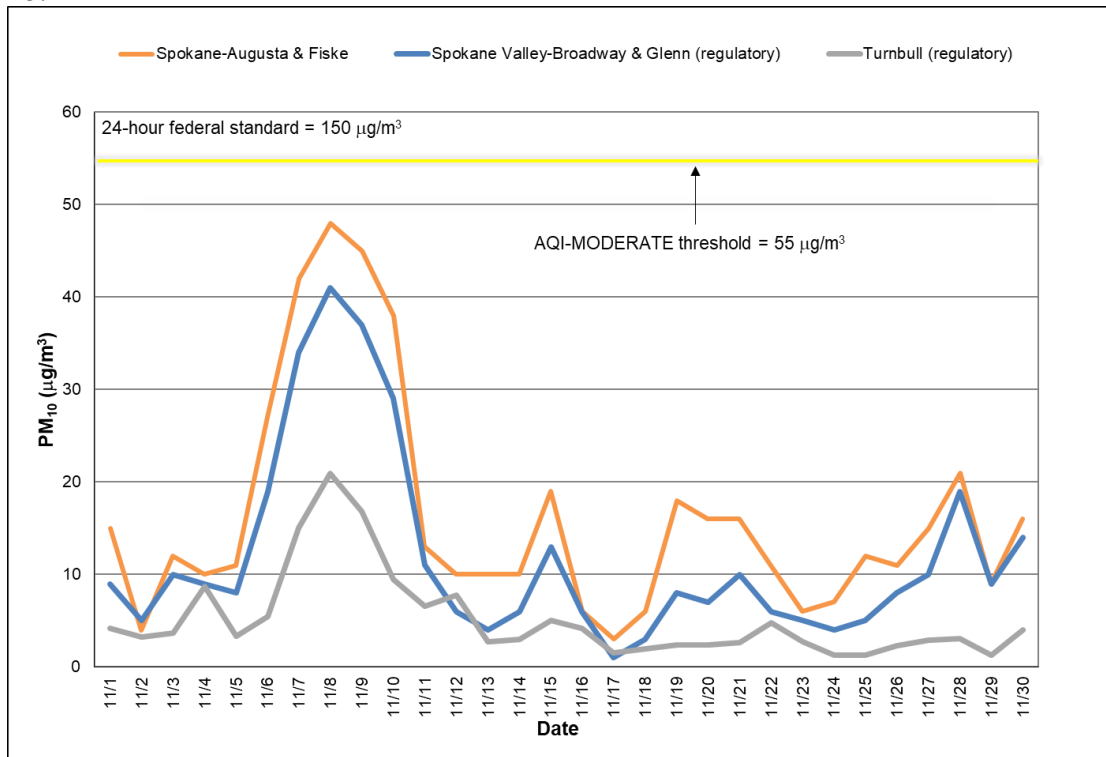


Table 1: AQI summary, November 2024. “Low-cost” sensor data are not represented in Tables 2 or 3.

Category	Number of days in November	Number of days this year to date
Good (0-50)	18	260
Moderate (51-100)	10	73
Unhealthy for Sensitive Groups (101-150)	2	2
Unhealthy (151-200)	0	0
Very Unhealthy (201-300)	0	0
Hazardous (>300)	0	0

Table 2: Maximum AQI values and pollutant concentrations for this reporting period.

Pollutant	AQI	Location	Date
Ozone	Ozone is monitored from May 1 st through September 30 th .		
PM ₁₀	44 (mass conc. = 48 µg/m ³)	Good	Spokane – Augusta & Fiske
PM _{2.5}	106 (conc. = 37.7 µg/m ³)	USG	Spokane – Monroe & Wellesley

Table 3: Maximum AQI values and pollutant concentrations this year.

Pollutant	AQI	Location	Date
Ozone	100 (conc. = 0.070 ppm)	Moderate	Greenbluff
PM ₁₀	85 (mass conc. = 124 µg/m ³)	Moderate	Turnbull National Wildlife Refuge
PM _{2.5}	106 (conc. = 37.7 µg/m ³)	USG	Spokane – Monroe & Wellesley

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): November summary air quality data for air monitoring stations in Spokane County.

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 and PM_{10} sensor at Spokane – Sprague & Haven were offline starting on the 14th because of broken equipment. The Pittsburg & 4th $\text{PM}_{2.5}$ sensor was offline from the 10th through the 13th because the power cord was disconnected. The PM_{10} sensor at Airway Heights – 12th & Lawson lost its data connection intermittently. PM_{10} data from that site were suspect in November, including the high reading ($60 \mu\text{g}/\text{m}^3$) on the 9th.

Date	Pollutant Concentration																							
	$\text{PM}_{2.5}$ ($\mu\text{g}/\text{m}^3$)															PM_{10} ($\mu\text{g}/\text{m}^3$)								
	24-Hour Avg															24-Hour Avg								
	$\text{PM}_{2.5}$ - 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, Pittsburg & 4th (sensor)	$\text{PM}_{2.5}$ - Spokane, Stonewall & Vicksburg (sensor)	$\text{PM}_{2.5}$ - Spokane, Thurston & Crestline (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)	$\text{PM}_{2.5}$ - Turnbull NWR (sensor)	$\text{PM}_{2.5}$ - Greenbluff (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)
11/1	7.8	5.7	9.2	6.2	6.7	7.6	8.4	6.1	7.9	8.8	9.0	8.7	5.7	9.8	9.3	6.8	5.2	8.2	15	9	4	10	5	9
11/2	2.9	2.5	2.9	3.0	3.3	3.7	3.9	3.0	4.1	3.7	3.4	4.4	3.1	4.6	4.7	3.4	2.8	3.7	4	5	3	3	2	3
11/3	6.8	11.5	8.3	8.2	9.1	7.5	13.7	9.4	12.3	13.0	12.1	12.5	10.2	11.6	10.1	7.9	5.4	12.0	12	10	4	8	7	7
11/4	3.0	2.6	3.9	4.0	4.9	5.1	6.1	4.5	6.1	5.7	5.7	6.8	3.7	8.6	5.8	4.0	4.2	5.9	10	9	9	16	6	10
11/5	3.5	3.5	5.9	3.7	4.8	5.3	5.4	5.3	5.2	5.4	6.2	4.8	4.0	5.4	5.4	4.1	2.5	4.0	11	8	3	8	5	5
11/6	11.1	11.0	14.3	11.1	14.1	14.8	15.7	14.1	14.9	15.1	15.5	14.3	11.4	15.4	15.0	10.9	6.8	9.5	27	19	6	27	14	15
11/7	23.5	21.3	27.4	23.0	27.2	28.1	25.9	28.4	23.9	27.3	23.7	21.9	22.5	25.6	26.0	18.6	17.2	20.8	42	34	15	40	27	28
11/8	28.1	28.7	34.5	30.0	35.1	35.3	35.2	37.0	32.0	36.4	36.4	29.1	30.2	37.4	34.4	27.2	22.9	28.7	48	41	21	42	36	35
11/9	31.4	32.8	37.2	37.8	34.9	35.0	43.5	41.9	43.7	44.6	39.9	40.4	33.6	41.9	39.6	32.9	23.2	36.7	45	37	17	60	33	30
11/10	24.8	35.8	34.0	34.5	33.1	27.0	44.7	40.7	43.6	43.0		44.1	29.1	36.5	29.8	20.0	13.6	30.1	38	29	10		31	28
11/11	8.3	8.4	10.3	9.2	9.7	7.1	13.2	13.8	13.2	13.0		13.5	9.8	11.1	9.0	6.9	6.7	7.7	13	11	7	14	11	11
11/12	2.1	1.8	4.1	3.0	3.8	3.2	3.4	3.4	4.0	4.0		3.7	3.1	3.6	3.6	2.9	4.7	3.1	10	6	8	7	4	6
11/13	6.0	4.0	5.4	3.6	4.2	5.1	4.8	4.2	4.6	4.5		4.4	4.1	5.1	4.9	4.4	4.2	5.1	10	4	3	5	3	5
11/14	3.9	1.0	5.3	3.2		3.4	3.8	3.9	4.2	4.1	4.4	3.6	2.4	4.3	4.1	2.6	2.1	2.3	10	6	3	4		4
11/15	6.7	5.9	10.2	8.8		9.9	15.8	13.0	14.9	14.8	11.8	15.4	10.5	15.0	15.8	10.7	8.9	9.2	19	13	5	21		12
11/16	3.1	5.5	4.8	4.4		5.7	8.7	6.6	7.5	7.0	6.3	7.3	6.3	7.6	7.5	6.1	5.7	7.9	6	6	4	8		5
11/17	1.9	0.7	2.4	2.1		1.5	2.7	2.5	2.8	2.5	2.5	2.7	2.4	2.6	2.6	2.3	2.3	2.3	3	1	2	3		2
11/18	0.0	1.6	2.1	2.3		3.0	3.1	2.8	3.2	2.9	2.7	3.4	2.5	3.3	3.6	2.6	2.4	3.1	6	3	2	4		2
11/19	4.3	3.8	6.7	4.6		5.2	5.1	6.4	5.9	5.5	6.0	5.3	5.0	5.6	5.5	4.4	3.8	5.0	18	8	2	11		6
11/20	6.2	3.5	5.8	4.6		5.5	6.4	7.1	5.9	7.0	7.6	6.4	4.6	6.7	6.6	5.2	3.3	5.7	16	7	2	8		5
11/21	7.3	6.4	10.9	7.3		10.5	12.6	12.7	10.7	12.8	13.0	10.8	9.9	12.9	12.4	11.0	4.7	12.0	16	10	3			10
11/22	7.1	4.8	7.0	5.8		7.2	9.7	9.3	8.5	9.8	9.1	9.4	8.9	9.7	8.4	6.2	7.4	7.7	11	6	5			7
11/23	3.6	3.5	3.6	4.1		4.7	6.3	5.9	6.9	6.0	7.3	7.1	4.8	7.3	7.7	5.5	5.2	5.9	6	5	3	4		4
11/24	5.4	6.4	4.4	4.6		4.3	8.3	7.5	7.7	8.0	7.3	7.9	6.5	6.9	7.5	4.7	4.9	6.9	7	4	1	5		4
11/25	4.1	3.9	5.3	3.9		4.1	6.4	6.4	6.2	6.3	6.7	6.1	3.4	6.6	5.0	3.2	2.2	3.8	12	5	1	4		5
11/26	4.6	4.7	6.7	5.8		6.8	9.8	9.2	9.3	9.4	7.3	8.7	6.9	10.0	9.3	7.1	6.4	8.4	11	8	2	6		5
11/27	4.4	4.1	7.6	6.5		5.9	11.2	10.1	11.8	11.2	10.1	10.5	8.9	11.1	11.5	7.8	8.8	9.0	15	10	3	6		6
11/28	9.8	12.8	14.1	12.3		14.4	20.8	18.1	18.7	20.3	18.7	18.1	15.6	18.1	16.3	10.9	7.9	13.1	21	19	3			9
11/29	3.2	6.0	6.0	6.4		6.7	11.0	10.2	11.7	10.4	9.8	10.4	9.2	11.5	29.9	11.6	8.4	11.7	9	9	1	21		5
11/30	7.6	12.2	12.8	11.7		10.8	18.9	16.9	17.6	18.0	15.3	17.5	14.6	16.7	17.3	14.3	12.7	15.9	16	14	4	14		9
AVG	8.1	8.5	10.4	9.2	14.7	9.8	12.8	12.0	12.3	12.7	11.5	12.0	9.8	12.4	12.3	8.9	7.2	10.2	16	12	5	14	14	10
MAX	31.4	35.8	37.2	37.8	35.1	35.3	44.7	41.9	43.7	44.6	39.9	44.1	33.6	41.9	39.6	32.9	23.2	36.7	48	41	21	60	36	35

Table A-3(2): November 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	PM _{2.5}																	PM ₁₀							
	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} - Turnbull NWR (sensor)	PM _{2.5} - Greenbluff (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
11/1	43	32	51	34	37	42	47	34	44	49	50	48	32	52	51	38	29	46	14	8	4	9	5	8	52
11/2	16	14	16	17	18	21	22	17	23	21	19	24	17	26	26	19	16	21	4	5	3	3	2	3	26
11/3	38	55	46	46	51	42	60	52	57	58	57	57	53	56	53	44	30	56	11	9	3		7	6	60
11/4	17	14	22	22	27	28	34	25	34	32	32	38	21	48	32	22	23	33	9	8	8	15	6	9	48
11/5	19	19	33	21	27	29	30	29	29	30	34	27	22	30	30	23	14	22	10	7	3	7	5	5	34
11/6	55	55	61	55	60	62	63	60	62	62	63	61	55	63	62	54	38	52	25	18	5	25	13	14	63
11/7	78	74	85	77	85	86	82	87	79	85	78	75	76	82	82	69	66	73	39	31	14	37	25	26	87
11/8	86	88	98	90	99	100	100	105	94	103	103	88	90	106	98	85	77	88	44	38	19	39	33	32	106
11/9	93	95	105	107	99	99	121	117	121	123	112	113	97	117	111	95	77	104	42	34	16	53	31	28	123
11/10	80	102	97	98	96	84	124	114	121	119		122	88	103	90	71	59	90	35	27	9		29	26	124
11/11	46	47	53	51	52	39	59	60	59	58		59	52	55	50	38	37	43	12	10	6	13	10	10	60
11/12	12	10	23	17	21	18	19	19	22	22		21	17	20	20	16	26	17	9	6	7	6	4	6	26
11/13	33	22	30	20	23	28	27	23	26	25		24	23	28	27	24	23	28	9	4	3	5	3	5	33
11/14	22	6	29	18		19	21	22	23	23	24	20	13	24	23	14	12	13	9	6	3	4		4	29
11/15	37	33	53	49		52	63	58	62	62	56	63	54	62	63	54	49	51	18	12	5	19		11	63
11/16	17	31	27	24		32	48	37	42	39	35	41	35	42	42	34	32	44	6	6	4	7		5	48
11/17	11	4	13	12		8	15	14	16	14	14	15	13	14	14	13	13	13	3	1	1	3		2	16
11/18	0	9	12	13		17	17	16	18	16	15	19	14	18	20	14	13	17	6	3	2	4		2	20
11/19	24	21	37	26		29	28	36	33	31	33	29	28	31	31	24	21	28	17	7	2	10		6	37
11/20	34	19	32	26		31	36	39	33	39	42	36	26	37	37	29	18	32	15	6	2	7		5	42
11/21	41	36	54	41		54	58	58	54	58	58	54	52	58	57	55	26	56	15	9	2			9	58
11/22	39	27	39	32		40	52	51	47	52	51	52	49	52	47	34	41	43	10	6	4			6	52
11/23	20	19	20	23		26	35	33	38	33	41	39	27	41	43	31	29	33	6	5	3	4		4	43
11/24	30	36	24	26		24	46	42	43	44	41	44	36	38	42	26	27	38	6	4	1	5		4	46
11/25	23	22	29	22		23	36	36	34	35	37	34	19	37	28	18	12	21	11	5	1	4		5	37
11/26	26	26	37	32		38	52	51	51	52	41	48	38	53	51	39	36	47	10	7	2	6		5	53
11/27	24	23	42	36		33	55	53	56	55	53	54	49	55	55	43	49	50	14	9	3	6		6	56
11/28	52	58	60	57		61	73	68	69	72	69	68	63	68	64	54	44	58	19	18	3			8	73
11/29	18	33	33	36		37	55	53	56	53	52	53	51	55	90	56	47	56	8	8	1	19		5	90
11/30	42	57	58	56		54	69	66	67	68	63	67	61	65	66	61	58	64	15	13	4	13		8	69
AVG	36	36	44	39	54	42	51	49	50	51	49	50	42	51	50	40	35	45	15	11	5	13	13	9	56
MAX	93	102	105	107	99	100	124	117	121	123	112	122	97	117	111	95	77	104	44	38	19	53	33	32	124