

Weather of 2010: Very snowy, cold winter followed by record heat, above normal temps and Precipitation

2010 brought rough times for many, which was complicated by some rather extreme weather. The weather pattern in the Laurel Highlands was quite active year-round; there were a number of moderate to heavy precipitation events, several severe weather episodes and an excessive amount of snowfall in all 3 winter months, particularly in February, which was brutally cold with paralyzing snows and winds. Temperatures abruptly turned warm in the spring, causing snow-melt flooding, to downright sizzling during the summer, with many heat waves from early April through September.

2010 wasted no time in bringing us records amounts of snow. During the first 12 days of January, a Nor' Easter stalled off the New England – Nova Scotia coast, bringing heavy lake effect snows, that piled up to 39.1 inches. Then came the January thaw, and some minor flooding due to heavy rains on the 25th-26th.

February will not soon be forgotten by many in the Mid-Atlantic region. Back-to-back blizzards struck the region within a week from the 5th-11th, the first of which brought a phenomenal amount of snow in a short period of time. 26.5" fell in 24 hours from the 5th-6th. In a 6-hour period overnight, 16 inches of snow fell – nearly 3" per hour! Steady snows fell again the 9th-11th, with strong winds and blizzard conditions. Another 15.5" was recorded from this storm. Large cities such as Washington, Baltimore and Philadelphia were immobilized from the two storms, each of which dumped about an entire season's worth of snow within 2 days. It was also very cold. 15 consecutive days from the 6th-20th failed to climb out of the 20s. A third February Nor' Easter slammed New York and New England from the 25th-28th. During this period, another 24" (two feet) of snow fell, along with damaging winds and massive drifting from blowing snow. An incredible 86.3" of snow was recorded in February, a record for any month. The frequently heavy, wet snow equated to a hefty 6.52" of precipitation.

Spring suddenly arrived in March. The snows abruptly stopped, the sun shined and temperatures quickly warmed into the 50s by the second week. This quickly melted the 3+ feet of wind-driven snow in the mountains, and a moderate to heavy rain system from a slow-moving Low over the Mid-Atlantic combined to cause some flooding. We dodged a bullet, however, as we received significantly lesser amounts of rain as areas to our south & east. March turned out significantly warmer and drier than average.

Summer-like temperatures made an early appearance the first week of April. 5 of the first 7 days were in the 80s. Several frontal passages briefly brought temperatures down, but each time they rebounded. Besides the unusually warm temperatures at times, the other highlight of April was the severe thunderstorm that pounded the area on the 16th. A derecho from this storm brought down many trees and power lines, along with small hail. Snow flurries flew behind the storm front. 1.44" of rain fell from another system on the 25th-26th, and the month ended warm with 79 on the 30th.

May began with record heat on the 1st, when the high reached 84. This was followed by a very active weather pattern. The first front passed through on the 2nd-3rd with nearly an inch of rain. Another potent cold front passed through on the 8th, bringing damaging winds and thunderstorms. Snow showers were observed on the 9th. Then on

the 11th, a heavy cold rain, mixed with sleet and even thunder, fell. Yet another system on its heels brought another severe thunderstorm to Johnstown on the 14th. This storm whipped through with damaging winds gusts, heavy rain, frequent lightning, and most importantly, large hail, which was reported as large as golf balls in parts of town. More heavy rain followed on the 17th-18th (1.60"), and nearly another inch fell on the 22nd. The final week was hot, with a high of 90 on the 30th. Scattered thunderstorms clipped the area on the 28th and 31st. A whopping 7.63" of precipitation was recorded in May.

June began active, with 2.11" of rain in a 24-hour period on the 4th-5th. A slow-moving thunderstorm on the evening of the 5th dumped over an inch of rain in an hour and caused minor flash flooding in town. A cold, soaking rain (1.38") fell on the 9th. The remainder of June was dry and very warm, with most days in the 80s the 2nd half. Another localized derecho hit Westmont on the 23rd, causing scattered tree damage and power outages.

July began with overnight lows in the 40s and fair weather, but this respite from the summer heat was brief. Highs from the 5th-8th were well into the 90s, peaking at a sizzling 96 on the 8th, with increasing humidity. The quiet weather pattern ended on the 9th, when a cold front brought thunderstorms to the area. A few locations had 2 to 3 inches from slow-moving storms. A more widespread, soaking rain passed through the night of the 13th-14th. 1.46" of rain fell here, with 3 to 4 inches reported in parts of Bedford County to our SE. Many other fronts brought strong thunderstorms to the area, particularly on the 25th, when a squall line produced locally damaging wind gusts. Prior to this frontal passage, temperatures reached the 90s again on the 24th, with a heat index of 102! A couple of jolting thunderstorms early on the 29th produced 1.16" of rainfall, pushing precipitation above normal for the 3rd consecutive month. July finished incredibly warm, with 5 days in the 90s and all but 2 days reaching 80 or higher.

August wasn't much better for those looking for relief from the summer heat. Another line of severe storms brought brief torrential rains and again locally damaging winds on the 4th. Temperatures reached the 90s again on the 9th and 11th, with heat indexes well into the 90s. This heat and humidity sparked a relentless thunderstorm that rocked the area in the predawn hours of the 12th. Nearly 2" (1.87") of rain fell in as many hours. The next significant rain event passed through the night of the 21st-22nd, when 1.35" of rain was recorded. The coolest temperatures of the month followed this front, but again, temperatures rebounded into the upper 80s to low 90s from the 28th to the 3rd of September. This was a very dry heat, with humidity readings in the 20% range.

September was generally quite warm and quiet, with drought conditions developing by mid-month. However, the 2nd half of September, things got interesting again. A cold inch of rain fell on the 16th. Very warm, humid conditions on the 22nd sparked another severe thunderstorm that toppled trees and wires in parts of town. Large hail fell just south of the station. A mainly dry month ended up very wet, as the remnants of Tropical Storm Nicole and a cold front combined for a widespread, drenching rain. 2.72" fell on the 30th, pushing precipitation above normal for the 5th consecutive month. Flooding occurred to our east, where locally 8 to 10 or more inches of rain were recorded. Meanwhile, September was the 7th consecutive month with above normal temperatures.

The streak of above-normal precipitation ended in October. Despite several weather systems, it was the driest month of 2010. It was also on the mild side. While the month began cool, temperatures warmed comfortably into the 70s by the 2nd week.

Several small but intense thunderstorms passed through the night of the 11th-12th. Some areas to our north were ravaged by large hail and damaging winds. The month's first frost occurred on the 20th, with a late first freeze on the 30th.

November brought a mixed bag of temperatures, with many lows near freezing. The weather pattern began relatively quiet, but became quite active by mid-month. Over an inch of rain fell the 16th, with damaging winds noted on the 17th. The first winter weather event brought an inch of snow and ice on Thanksgiving, the 25th. 2.47" of rain fell on the 25th-26th. Another large system dumped heavy rains totaling 2.61" on Nov. 30 – Dec. 1, prompting flood warnings and advisories throughout the area.

After a strong cold frontal passage on December 1st, winter arrived on cue, with heavy lake effect snows affecting the area twice in the first couple weeks. 14.5" fell on the 5th-7th, with an additional 10.8" on the 13th-15th. Temperatures with the second storm reached single figures for the first time, and wind chills were well below zero, with blizzard conditions and highs only in the teens. Cold temperatures, blustery winds and frequent light snows continued through Christmas, the 2nd consecutive white Christmas, a rarity in recent years. The brutally cold, snowy month ended as it began – mild, with a high of 48 on New Year's Eve with sunshine and melting snow.

2010 Westmont/Johnstown Area Weather Statistics

2010 Monthly and Annual Climate Summary											
Westmont 1 W, PA, Cambria County											
Observer Nate Mullins											
Station Observation Time: Midnight											
Lat: 40.316950°, Long: - 78.972324°, Elevation 1919'											
Temperature, ° F								Number of days			
Month	Mean Max	Mean Min	Mean Temp	Departure	Max Temp	Date	Min Temp	Date	Max ≥ 90	Max ≤ 32	Min ≤ 32
Jan	28.0	17.3	22.6	-3.3	47	25	2	3	0	21	30
Feb	28.6	17.9	23.3	-5.2	41	21	1	7	0	22	28
Mar	50.4	31.5	41.0	3.6	72	21	18	6	0	0	15
Apr	66.1	40.3	53.2	4.8	84	2	29	14	0	0	5
May	71.6	49.3	60.4	1.7	90	30	31	10	1	0	1
Jun	78.1	58.3	68.2	1.5	88	21	45	30*	0	0	0
Jul	85.5	60.8	73.1	2.4	96	8	45	2*	5	0	0
Aug	81.8	60.2	71.0	2.0	91	31*	47	28*	4	0	0
Sep	74.1	52.0	63.0	0.6	91	2	41	11	2	0	0
Oct	60.8	43.3	52.0	1.0	77	9	31	30	0	0	1
Nov	50.7	32.0	41.4	0.3	69	22	22	28	0	1	17
Dec	28.1	17.5	22.8	-7.5	55	1	9	16*	0	25	31
Year	58.7	40.0	49.3	0.1	96	7/8	1	2/7	12	69	128

Precipitation, Inches					Number of days				Snow/ice, Inches		
Month	Total Precip	Departure	Max Day	Date	> 0.01"	> 0.10"	> 0.50"	> 1.00"	Total Snow	Max Day	Date
Jan	4.61	0.80	1.11	25	19	11	3	1	43.1	8.0	5
Feb	6.52	3.10	1.22	5	22	14	5	1	86.3	17.0	5
Mar	2.85	-1.02	0.63	28	13	7	2	0	1.2	0.7	3
Apr	2.63	-1.18	0.86	26	10	5	3	0	T	T	18*
May	7.63	3.32	1.37	17	17	13	6	2	T	T	11*
Jun	5.44	0.58	1.56	5	12	9	3	2	0.0	-	-
Jul	5.57	0.46	1.16	29	13	10	7	1	0.0	-	-
Aug	4.39	0.29	1.87	12	11	6	3	1	0.0	-	-
Sep	5.13	0.98	2.72	30	11	7	2	1	0.0	-	-
Oct	2.19	-1.08	0.52	26	12	10	1	0	0.0	-	-
Nov	6.46	2.81	1.90	25	13	7	5	3	1.6	1.0	25
Dec	3.02	-0.31	0.94	1	23	9	2	0	41.3	5.5	7*
Year	56.44	8.75	2.72	9/30	176	108	42	12	173.5	17.0	2/5
Note: * = also occurred on earlier dates that month											
Special Obs - Number of days with:							Monthly summary comments				
Month	Fog	Sleet	Glaze	Thunder	Hail	Dmg wind					
Jan	6	4	3	0	0	1	Record 39.1" snow 1st 12 days				
Feb	2	7	2	0	0	1	86.3" snow, record for any month				
Mar	7	3	0	1	0	0	Very mild, floods from snow melt				
Apr	3	1	0	4	1	1	Warm, dry, severe t-storm 16th				
May	13	1	0	7	2	2	Very wet, severe hail storm 14th				
Jun	11	0	0	7	0	1	Stormy early, very warm & humid				
Jul	8	0	0	9	0	0	Extreme heat, frequent t-storms				
Aug	8	0	0	3	0	0	Hot, heavy t-storm 12th, dry end				
Sep	8	0	0	1	0	1	Warm, dry, tropical deluge 30th				
Oct	7	0	0	2	1	0	Variable, breezy, somewhat mild				
Nov	8	2	1	0	0	1	Ice storm 25th, then heavy rains				
Dec	3	3	1	0	0	1	Persistent cold, wind & snow				
Year	84	21	7	34	4	9	Cold then hot, wet, very snowy				