2019 TOP 10 WISCONSIN WEATHER EVENTS

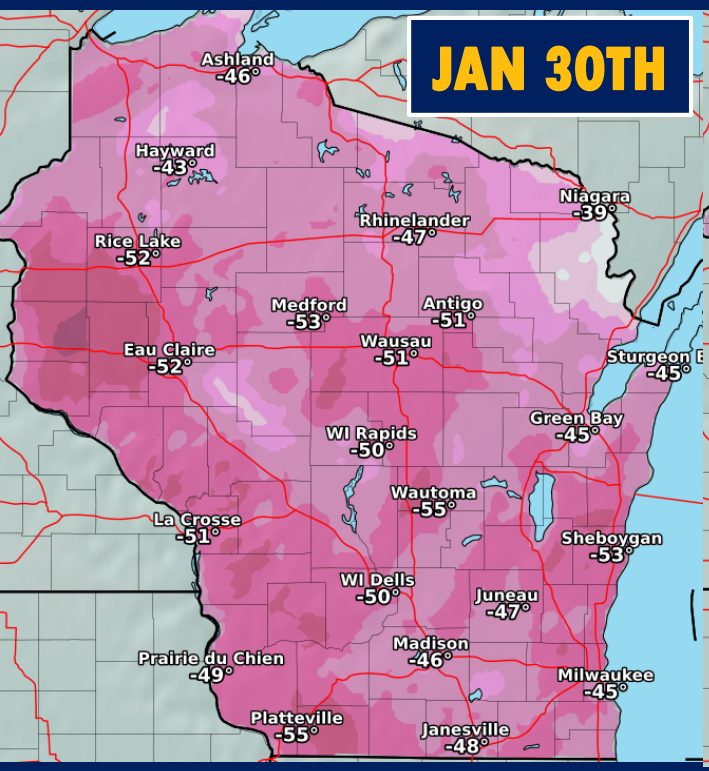
1. DANGEROUS COLD OF JANUARY 29-31
2. FEBRUARY 12 WINTER STORM
3. FEBRUARY 23-24 BLIZZARD
4. EAU CLAIRE SEASONAL SNOWFALL RECORD
5. HIGH LAKE MICHIGAN WATER LEVELS
6. JULY 19 NORTHERN WI BLOWDOWN
7. JULY 20 CENTRAL WI DERECHO
8. FALL TORNADOES
9. COLD AND SNOWY END OF FALL
10. WET 2019

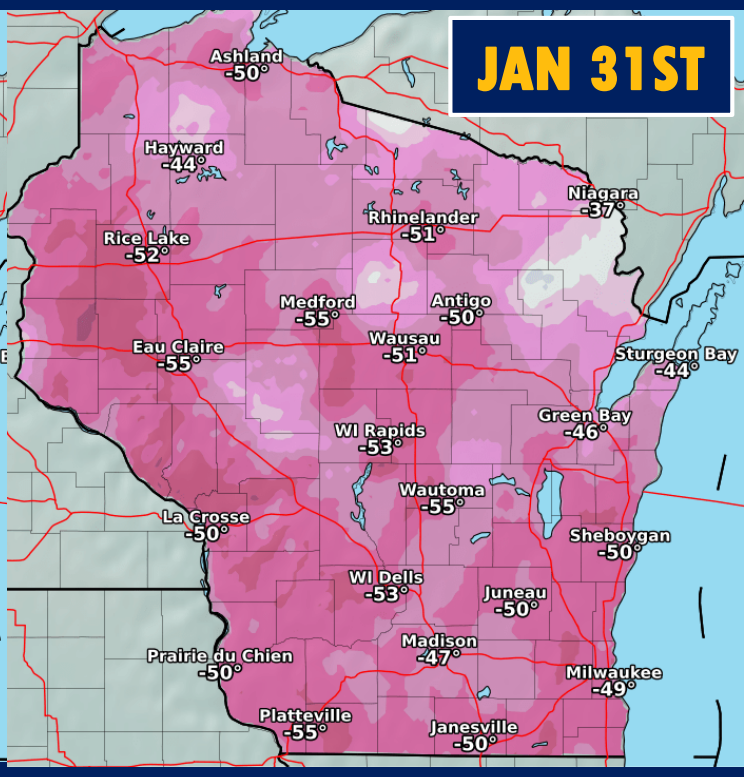
THESE CHRONOLOGICALLY LISTED WEATHER EVENTS HAVE BEEN SELECTED AND COORDINATED BY THE WARNING COORDINATION METEOROLOGISTS FROM THE NATIONAL WEATHER SERVICE OFFICES SERVING WISCONSIN. CLIMATE RELATED INFORMATION AND MAPS ARE FROM THE NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION AND THE MIDWEST REGIONAL CLIMATE CENTER.

#1 DANGEROUS COLD OF JANUARY 29-31

COLDEST AIR MASS SINCE 1996 BROUGHT 3 DAYS IN A ROW OF SUB-ZERO TEMPERATURES WITH WIND CHILLS OF -30F TO -60F

COLDEST WIND CHILLS





COLDEST AIR TEMPERATURES

BUTTERNUT	-49F
GAYS MILLS	-45F
BLACK RIVER FALLS	-42F
CASHTON	-40F
HILLSBORO	-40F
DARLINGTON	-39F

IN THE WAKE OF A WINTER STORM, A DANGEROUSLY COLD AIR MASS SETTLED IN ACROSS THE UPPER MIDWEST FOR THE END OF JANUARY 2019. TEMPERATURES DROPPED ON THE AFTERNOON OF MONDAY THE 28TH AND WOULDN'T GO BACK ABOVE ZERO DEGREES UNTIL FRIDAY MORNING. WINDY CONDITIONS CAUSED THE EXTREME WIND CHILLS ON TUESDAY THE 29TH GOING INTO EARLY WEDNESDAY. WHILE WINDS DROPPED, THE TEMPERATURES FELL EVEN MORE INTO EARLY THURSDAY.

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

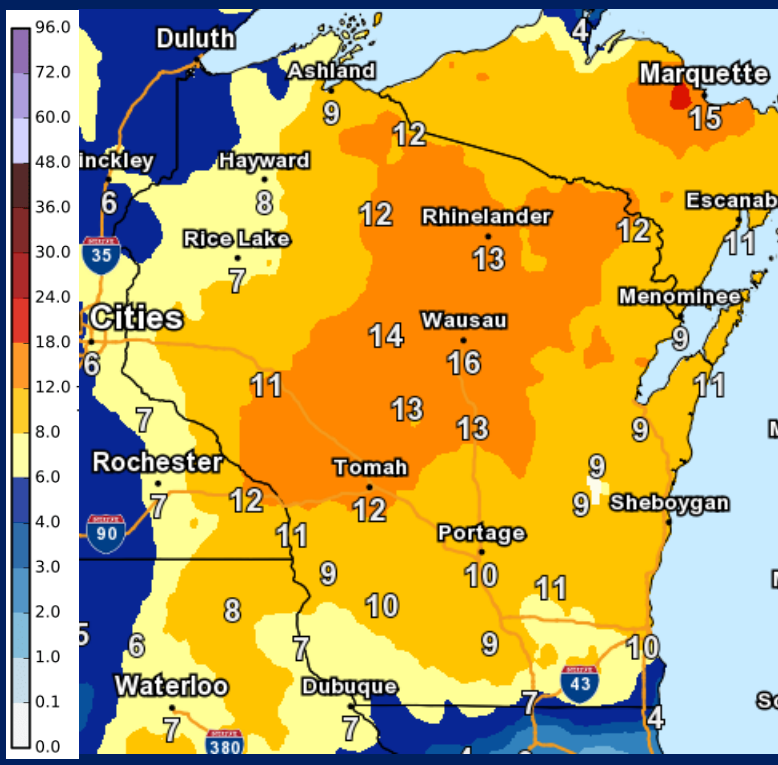
NATIONAL WEATHER SERVICE

#2 FEBRUARY 12 WINTER STORM

RECORD SETTING FEBRUARY WINTER STORM THAT BROUGHT UP TO 16" OF SNOW TO CENTRAL TO NORTHEAST WISCONSIN

SNOW TOTALS

20.0" INDEPENDENCE
18.5" TUNNEL CITY
17.6" TOMAH
17.4" LOYAL
16.0" ALMA
16.0" MINOCQUA
15.7" WAUSAU
15.4" NEW LONDON
15.4" WISCONSIN RAPIDS
14.9" RHINELANDER
14.8" WAUPACA

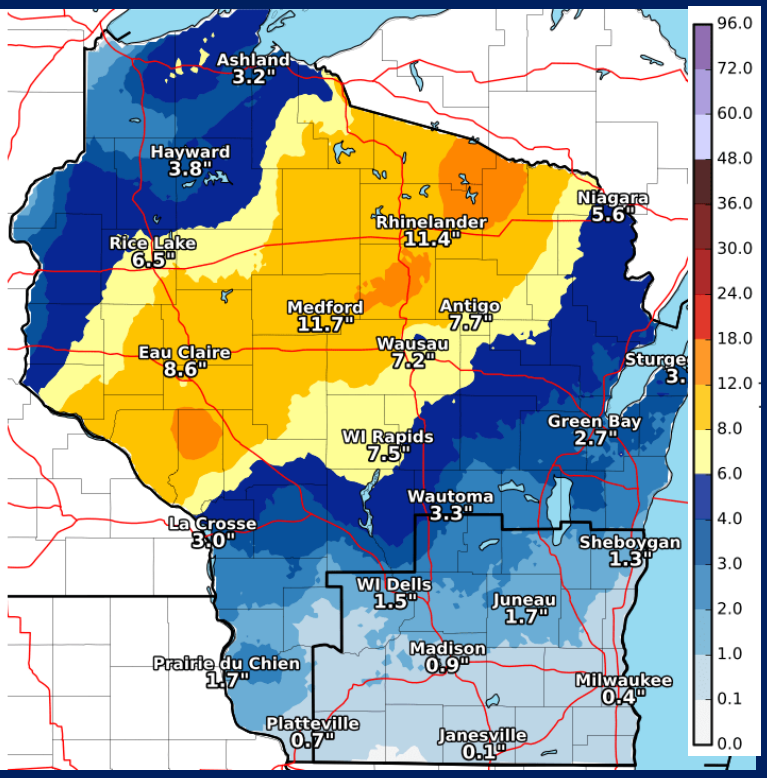


A STORM SYSTEM BROUGHT SNOW FROM MONDAY EVENING ON THE 11TH THROUGH THE EARLY MORNING HOURS OF WEDNESDAY THE 13TH. THE 15.7" OF SNOWFALL IN WAUSAU WAS THE HIGHEST FEBRUARY STORM TOTAL IN THEIR HISTORY FOR ANY SINGLE SNOW STORM. RHINELANDER RECORDED 14.9", WHICH WAS THE THIRD LARGEST FEBRUARY SNOWFALL OF ALL TIME.

NWS LA CROSSE

#3 FEBRUARY 23-24 BLIZZARD

BLIZZARD BRINGS WHITEOUT CONDITIONS AND ONE OF THE LARGEST VEHICLE PILE UPS IN WISCONSIN HISTORY



SNOW TOTALS

16.0" INDEPENDENCE
14.8" EAGLE RIVER
13.0" ELEVA
12.6" TOMAH
12.6" ARGONNE

WIND GUSTS (MPH)

60 GREEN BAY
58 WAUSAU
56 MANITOWOC

AN INTENSE WINTER STORM BROUGHT HEAVY SNOW OF OVER A FOOT FROM WEST CENTRAL TO NORTHERN WISCONSIN ALONG WITH UP TO A HALF INCH OF ICE IN CENTRAL WISCONSIN. HIGH WINDS OF 50-60 MPH OCCURRED AS THE SYSTEM MOVED OUT OF THE REGION, WHICH BROUGHT BLIZZARD AND WHITEOUT CONDITIONS, EVEN IN AREAS THAT DIDN'T RECEIVE MUCH SNOW. A LOCALIZED POCKET OF WHITEOUT CONDITIONS OCCURRED NEAR NEENAH ON I-41 WHERE ONE MOTORIST WAS KILLED AND 71 OTHERS INJURED IN A 131 VEHICLE PILE UP. THE TRAFFIC CRASH IS THOUGHT TO BE THE LARGEST IN STATE HISTORY.

WISDOT

Sunday, February 24, 2019 11:29:50 AM

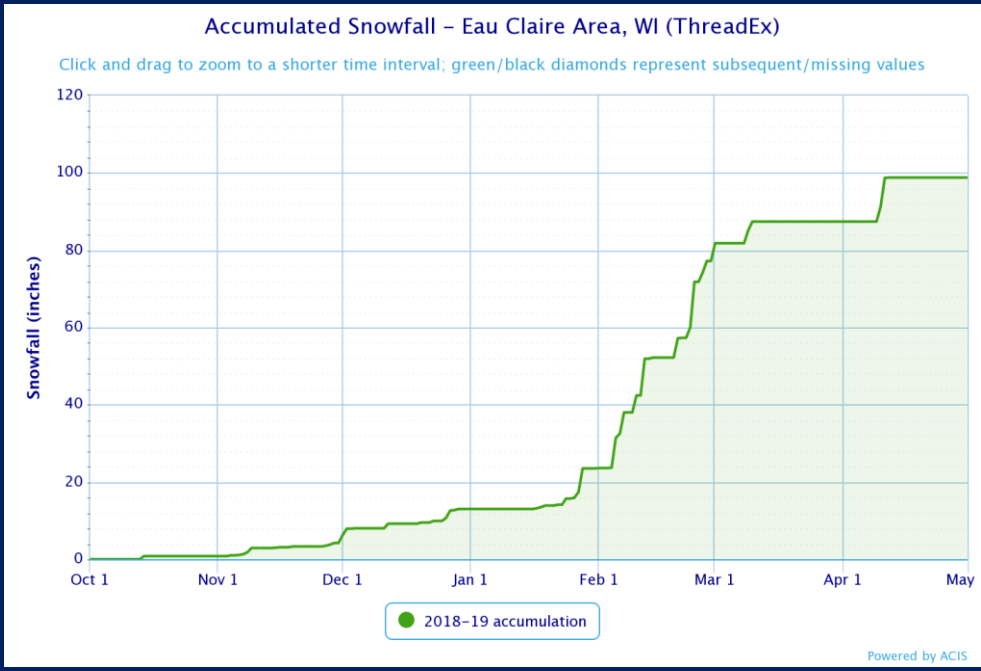
TONY SCHUMACHER

#4 EAU CLAIRE SEASONAL SNOW RECORD

SNOWFALL SEASON AT EAU CLAIRE BREAKS THE RECORD FOR MOST SNOW IN A SEASON WITH MOST OF IT FALLING FEB-APR

EAU CLAIRE SNOWIEST SEASON TOTALS

98.8”	2018-19
89.3”	1996-97
84.9”	1928-29
84.3”	2012-13
78.2”	1968-69
77.6”	1995-96
75.8”	1970-71
74.8”	2013-14
71.5”	2010-11
68.7”	1961-62



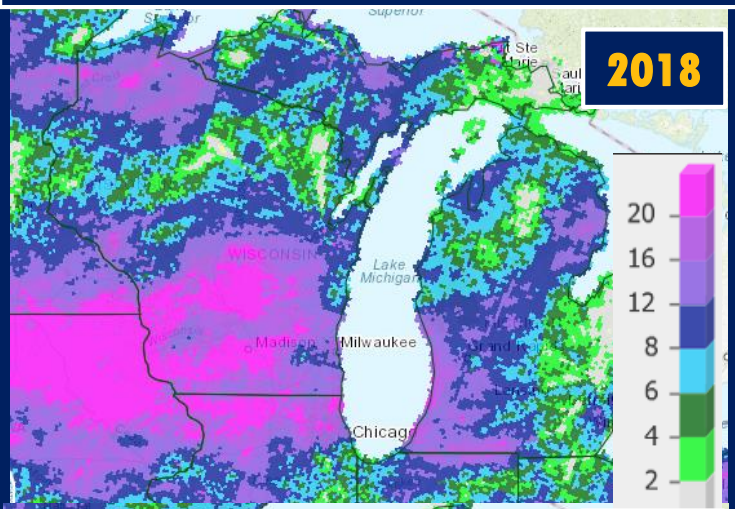
THE INTERESTING PART OF LAST YEAR’S SNOWFALL ACCUMULATION WAS THAT MOST OF IT OCCURRED AFTER FEBRUARY 1ST. AT THE END OF JANUARY, 23.7” OF SNOW HAD FALLEN, WHICH MEANS THAT 75.1” OF SNOW FELL FROM THEN THROUGH APRIL 12TH(LAST SNOW OF THE SEASON). NUMERIOUS ISSUES WITH THE WEIGHT OF THIS SNOW ON HOUSE/BUILDING ROOFS OCCURRED AS A RESULT OF THESE WET/HEAVY SNOWFALLS.

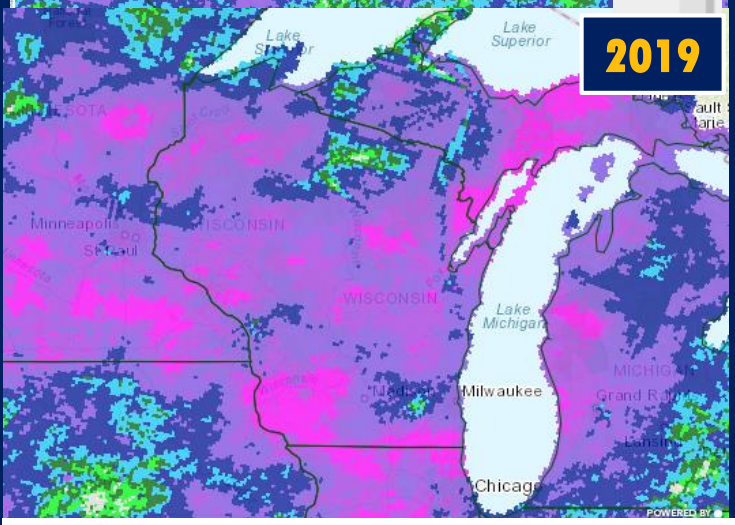
NIKKI LAFKY

#5 HIGH LAKE MICHIGAN WATER LEVELS

7 YEARS IN A ROW OF ABOVE NORMAL RAINFALL LEADS TO NEAR RECORD WATER LEVELS ON LAKE MICHIGAN

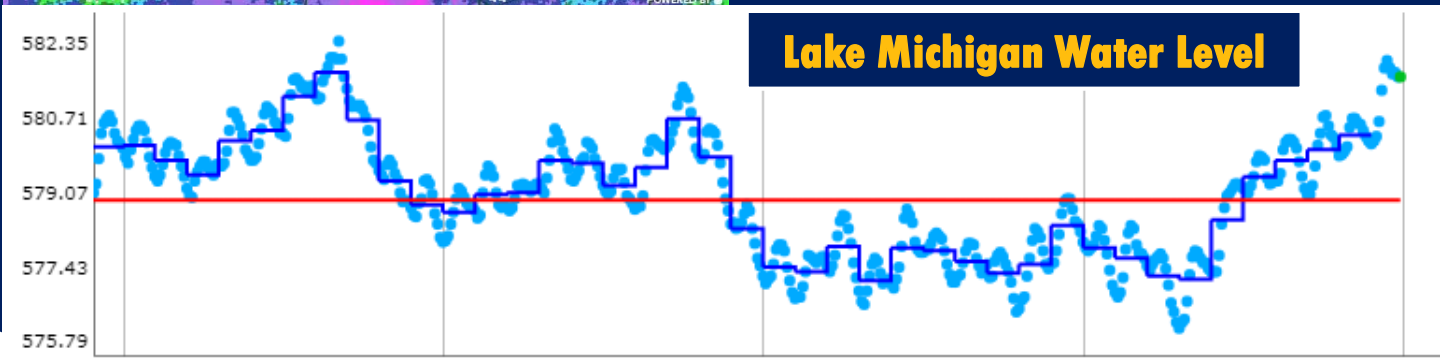
PRECIPITATION: DEPARTURE FROM NORMAL





PRECIPITATION (LAKE MICHIGAN BASIN)
2018: 12" TO 20"+ ABOVE NORMAL
2019: 12" TO 20"+ ABOVE NORMAL

AFTER HAVING NEAR RECORD LOW WATER LEVELS BETWEEN 2000-2013, THERE HAVE BEEN 7 YEARS IN A ROW OF ABOVE NORMAL PRECIPITATION IN THE LAKE MICHIGAN BASIN. IN THE PAST TWO YEARS, 2 TO 4 FEET OF EXTRA PRECIPITATION HAS FALLEN. AS A RESULT OF THESE HIGHER THAN NORMAL WATER LEVELS, ANY EASTERLY WINDS HAVE LEAD TO EROSION AND SOME FLOODING AT ANY WATERWAYS THAT ENTER THE LAKE.



#6 JULY 19 NORTHERN WI BLOWDOWN

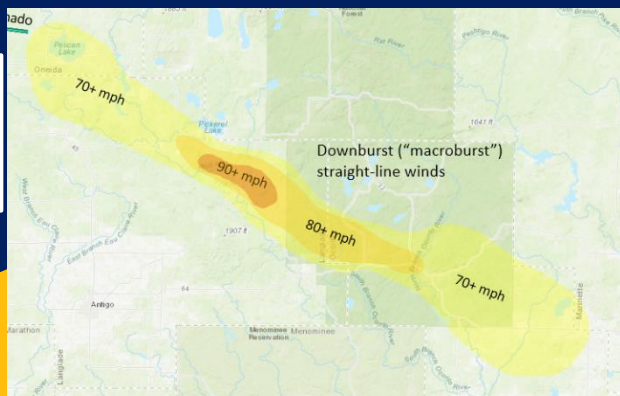
MACROBURST LEVELS HUNDREDS OF THOUSANDS OF TREES ACROSS NORTHERN WISCONSIN WITH OVER 100 MPH WINDS

THE WORST DAMAGE WAS ASSOCIATED WITH A "MACROBURST", A LARGE DOWNBURST OF STRAIGHT-LINE WINDS FROM ONEIDA COUNTY THROUGH LANGLADE AND OCONTO COUNTIES. HUNDREDS OF THOUSANDS OF TREES WERE SNAPPED OR UPROOTED, RESULTING IN DAMAGE TO DOZENS OF HOMES AND COTTAGES.

7 TORNADOES ALSO OCCURRED WITH THIS: 4 EF-0 AND 3 EF-1

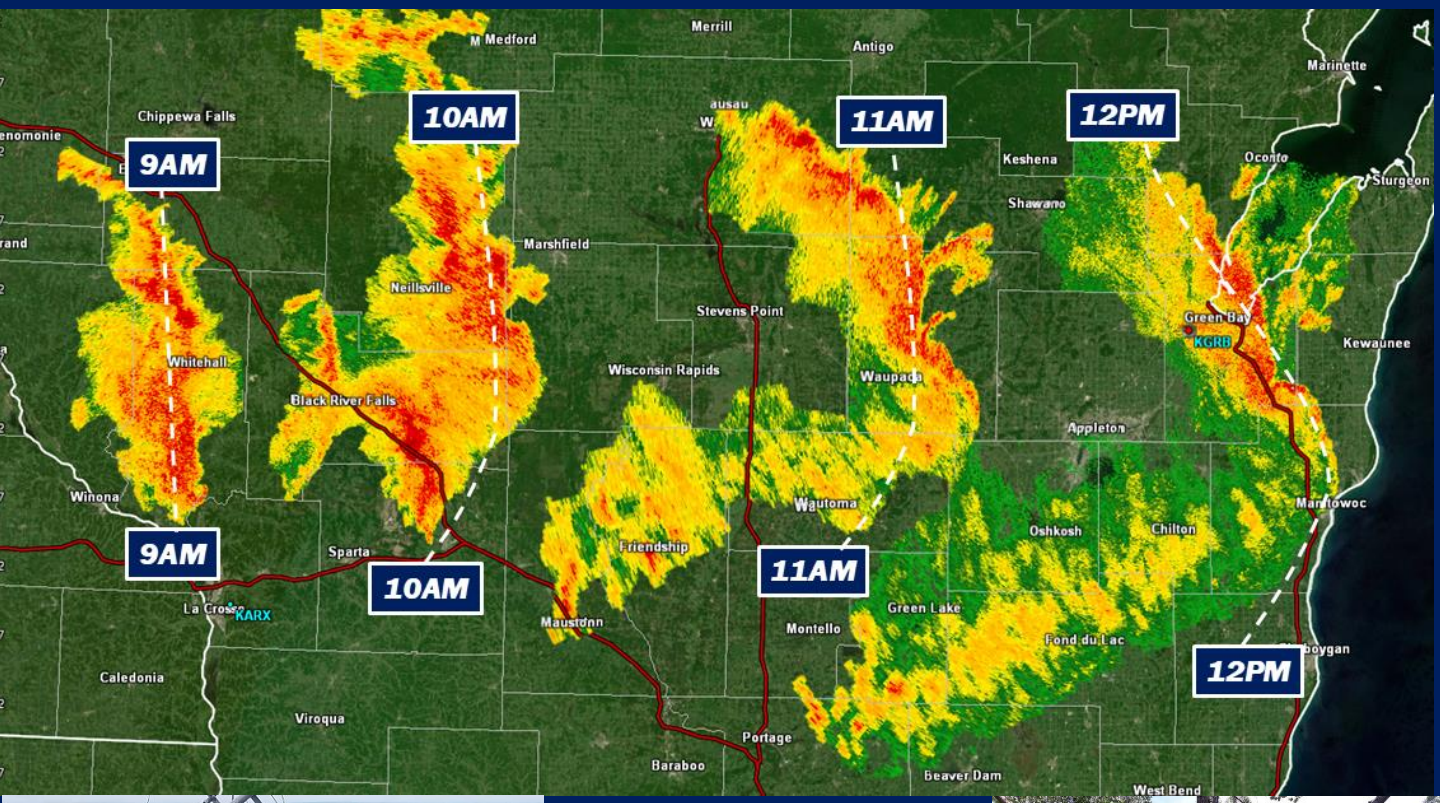
PICKERAL FD

STRAIGHT-LINE WIND SPEED ESTIMATES



#7 JULY 20 CENTRAL WI DERECHO

SQUALL LINE WITH DAMAGING STRAIGHT LINE WINDS MOVES THROUGH CENTRAL WI ON A SATURDAY MORNING



NWS GREEN BAY

IN THE WAKE OF THE SQUALL LINE THE CAME THROUGH A FEW HOURS EARLIER, ANOTHER SQUALL LINE DEVELOPED IN WEST CENTRAL WI AND QUICKLY ROLLED ACROSS TO EAST CENTRAL WI BY NOON.

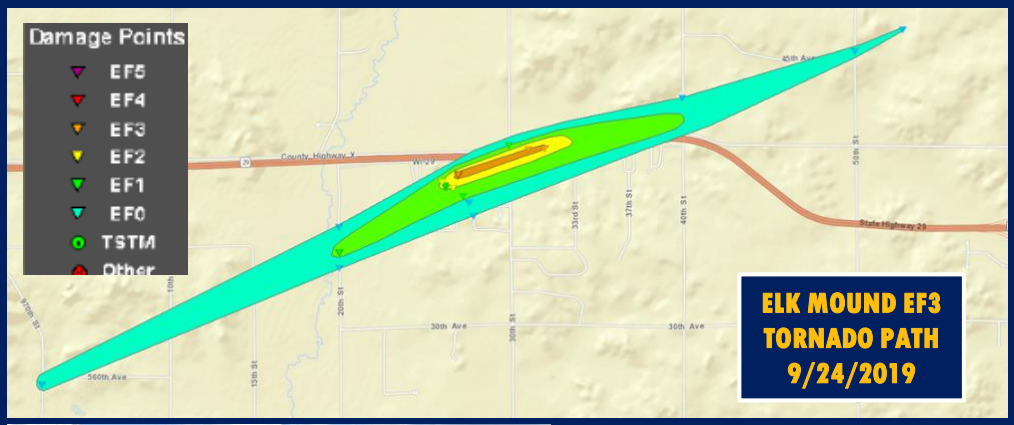
8 TORNADOES ALSO OCCURRED FROM THIS COMPLEX OF STORMS: 5 EF-0 AND 3 EF-1

NWS GREEN BAY

NWS LA CROSSE

#8 FALL TORNADOES

LATE SEASON TORNADOES BRING DAMAGE TO WEST CENTRAL AND SOUTHEAST WI, WHICH INCLUDED AN EF-3 BY ELK MOUND



ELK MOUND EF3 TORNADO PATH 9/24/2019

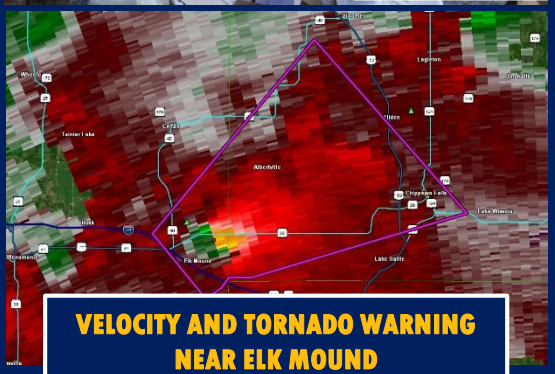
9/24/2019 TORNADOES:	MAG:
ELK MOUND	EF-3
GREENWOOD	EF-1

10/1/2019 TORNADOES:	MAG:
FORT ATKINSON	EF-0
OTTAWA	EF-1

ELK MOUND

THE STRONGEST TORNADO OF THE YEAR WAS THE EF-3 THAT WENT THROUGH ELK MOUND AND PRODUCED WINDS ESTIMATED TO 150 MPH! ONLY 2 INJURIES AND NO FATALITIES OCCURRED WITH THIS TORNADO. LATER THAT EVENING, ANOTHER TORNADO OCCURRED NEAR GREENWOOD WHICH REACHED EF-1 INTENSITY.

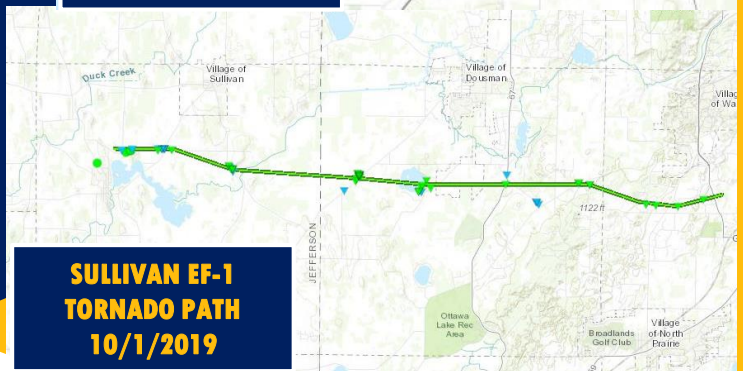
ON OCTOBER 1ST, SOUTHEASTERN WISCONSIN HAD ITS FIRST TORNADOES OF THE YEAR WHEN AN EF-0 OCCURRED IN FORT ATKINSON AND AN EF-1 TRACKED TO WITHIN A MILE AND A HALF OF THE NWS MILWAUKEE/SULLIVAN OFFICE! NO INJURIES OCCURRED WITH THIS STORM.



VELOCITY AND TORNADO WARNING NEAR ELK MOUND

FORT ATKINSON EF-0 TORNADO PATH 10/1/2019

GREENWOOD EF-1 TORNADO PATH 9/24/2019



SULLIVAN EF-1 TORNADO PATH 10/1/2019

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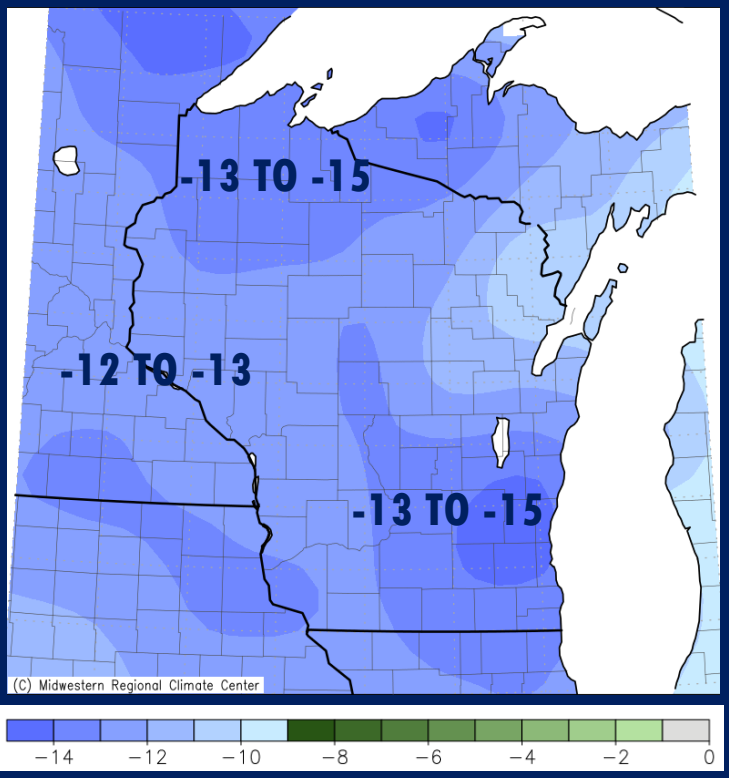
#9 COLD AND SNOWY EARLY NOVEMBER

WINTER STARTED EARLY IN WISCONSIN THIS YEAR WITH WELL BELOW NORMAL TEMPERATURES FROM LATE OCT TO MID NOV

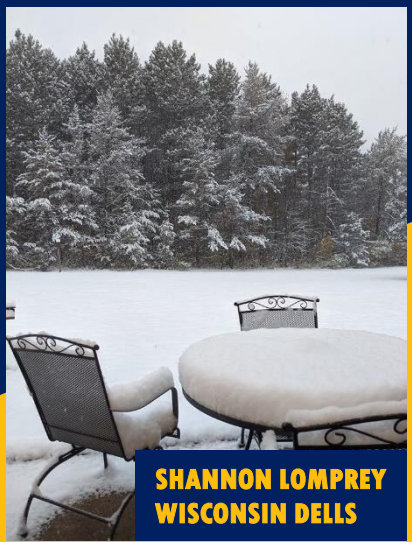
TEMPERATURE DEPARTURE FROM NORMAL OCTOBER 31 TO NOVEMBER 12



NORTHWESTERLY FLOW ALOFT SETUP ACROSS THE UPPER MIDWEST FROM LATE OCTOBER THROUGH MID NOVEMBER. SOUTHERN WISCONSIN SAW ABOUT A FOOT OF SNOW OUT OF 3-5 SEPARATE SNOWFALL EVENTS OVER THIS PERIOD AS WELL. NORMAL FOR THIS PERIOD IS ABOUT 1 INCH OR LESS. CONDITIONS FOR HALLOWEEN AND TRICK OR TREATING WERE LESS THAN OPTIMAL.

COLDEST AIR TEMPERATURES

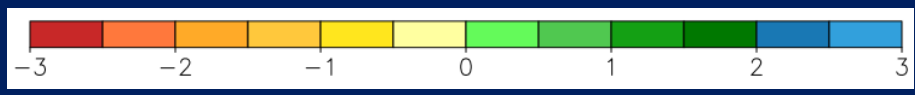
FLORENCE	-7F
HAYWARD	-5F
BUTTERNUT	-5F
BLACK RIVER FALLS	-4F
STEVENS POINT	-2F
DARLINGTON	-1F

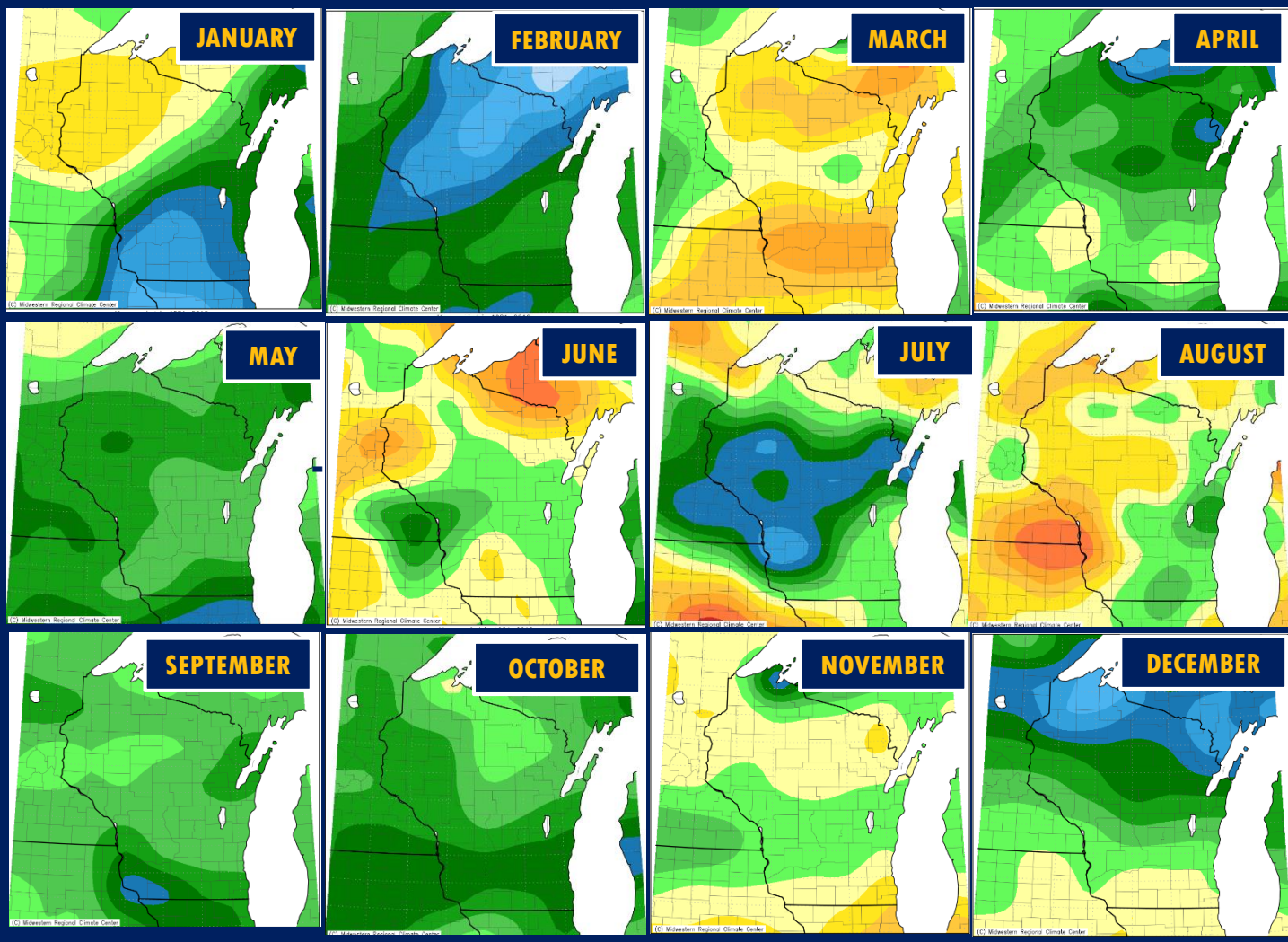


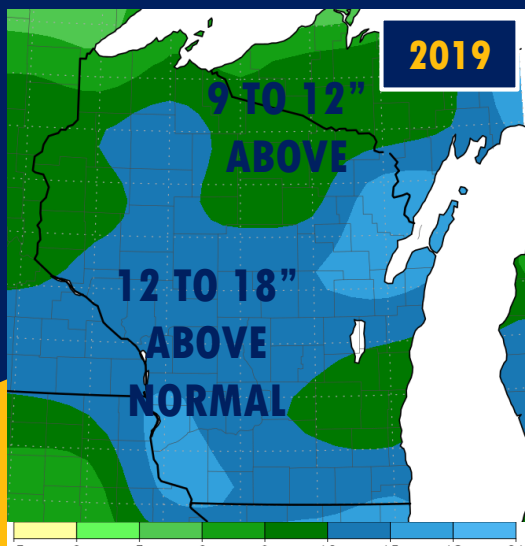
#10 WET 2019

ABOVE NORMAL PRECIPITATION OCCURRED STATEWIDE IN 2019 WITH YEARLY PRECIPITATION RECORDS SET

MONTHLY PRECIPITATION DEPARTURE FROM NORMAL





2019 PRECIPITATION RANKINGS

GREEN BAY	RANK: 1	46.98”
APPLETON	RANK: 1	47.51”
WAUSAU	RANK: 2	46.44”
MILWAUKEE	RANK: 3	46.01”
LA CROSSE	RANK: 3	44.67”
EAU CLAIRE	RANK: 4	44.05
MADISON	RANK: 5	46.39”
RHINELANDER	RANK: 6	40.88”