

Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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NORTH DAKOTA, Central and West

(ND-Z003) RENVILLE, (ND-Z004) BOTTINEAU, (ND-Z011) WARD, (ND-Z012) MCHENRY, (ND-Z019) MERCER, (ND-Z021) MCLEAN

05/01/11 00:00 CST			0	Blizzard
05/01/11 05:00 CST			0	

A powerful late spring storm system swept across the Northern Plains region April 29th through May 1st. Impacts were most significant over west central and northwest North Dakota. See April Storm Data for additional details.

BOTTINEAU COUNTY --- 44.5 W ANTLER [48.98, -102.25], 36.1 SSW LANSFORD [48.18, -101.77], 29.1 S WILLOW CITY [48.18, -100.34], 3.5 WSW WILLOW CITY [48.58, -100.35], 4.9 N LANDA [48.97, -100.90]

05/01/11 00:00 CST			0.25M	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST			0	Source: Other Federal Agency

See the event episode narrative for details.

MCHENRY COUNTY --- 67.8 NW DEERING [48.98, -102.25], 36.4 WSW DEERING [48.18, -101.77], 12.1 SSE TOWNER [48.18, -100.34], 12.7 ENE BANTRY [48.58, -100.35], 28.2 NNW UPHAM [48.97, -100.90]

05/01/11 00:00 CST			5M	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST			0	Source: Other Federal Agency

See the event episode narrative for details.

RENVILLE COUNTY --- 26.0 NW TOLLEY [48.98, -102.25], 31.6 SSW GRANO [48.18, -101.77], 46.6 ESE GLENBURN [48.18, -100.34], 40.1 E GLENBURN [48.58, -100.35], 30.1 ENE LORAIN [48.97, -100.90]

05/01/11 00:00 CST			5M	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST			0	Source: Other Federal Agency

See the event episode narrative for details.

WARD COUNTY --- 20.8 N NIOBE [48.98, -102.25], 9.8 S BERTHOLD [48.18, -101.77], 33.5 ENE SAWYER [48.18, -100.34], 36.4 ENE WOLSETH [48.58, -100.35], 37.3 NNE WOLSETH [48.97, -100.90]

05/01/11 00:00 CST			0.10B	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST			0	Source: Other Federal Agency

See the event episode narrative for details.

This was part of historic flooding in North Dakota with statewide costs estimated around 1.5 billion dollars. Flooding was the result of significant winter snows and significant spring rains, not only in North Dakota but in Saskatchewan, Canada, as well. Flooding was along the Souris (Mouse) River from where it enters the United States from Saskatchewan, Canada, to where it crosses into Manitoba, Canada. Dams were overwhelmed by the amount of water. Flooding included river, ground, and overland types. Estimated damages were many hundreds of millions of dollars, and that is not all inclusive. There was a significant loss to agriculture by not being able to plant. A tremendous flood fight was waged against the river, and that cost is not included here. Storm Data cannot reflect the scope of this event. Information is what was available at the time of this writing. Refer to newspaper articles and other federal, state, and local sources for detailed information.

Here are some facts about the flooding in North Dakota provided by North Dakota Emergency Management. The total estimated flood cost was around \$1.5 billion. Individual and housing assistance was \$323 million; small business \$248 million; home and business reconstruction \$452 million; public response, recovery, and mitigation \$480 million; disaster unemployment for 866 claims was \$2.3 million; and the public finance authority disaster loan program approved \$56.6 million. Public infrastructure costs were \$320 million. Of the state's 53 counties, 48 were impacted, along with three tribal nations.

BURLEIGH COUNTY --- 11.0 NNE WILTON [47.31, -100.69]

05/09/11 11:50 CST			0	Hail (0.75 in)
05/09/11 11:52 CST			0	Source: Mesonet

Early afternoon thunderstorms developed across portions of south central North Dakota on May 9th. One report of large hail was received in northern Burleigh County.

WARD COUNTY --- 3.5 S DES LACS [48.20, -101.56]

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/10/11 11:58 CST		0	Hail (0.88 in)
	05/10/11 12:00 CST		0	Source: Public

WARD COUNTY --- 5.0 NNW FOXHOLM [48.44, -101.60]

05/10/11 12:17 CST	0	Hail (0.88 in)
05/10/11 12:20 CST	0	Source: Public

Early afternoon thunderstorms developed across portions of north central North Dakota on May 10th. Two reports of large hail were received in Ward County.

DUNN COUNTY --- 62.6 WNW KILLDEER [47.75, -103.99], 23.2 N WERNER [47.70, -102.38], 58.8 N WERNER [48.21, -102.27], 79.5 NW KILLDEER [48.17, -104.00]

05/11/11 00:00 MST	50K	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 MST	0	Source: Other Federal Agency

See the event episode narrative for details.

MCKENZIE COUNTY --- 7.2 SSE FAIRVIEW [47.75, -103.99], 14.0 E MANDAREE [47.70, -102.38], 29.3 ENE CHARLSON [48.21, -102.27], 22.1 N FAIRVIEW [48.17, -104.00]

05/11/11 00:00 MST	50K	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 MST	0	Source: Other Federal Agency

See the event episode narrative for details.

MOUNTRAIL COUNTY --- 67.7 WSW SANISH [47.75, -103.99], 19.7 SW PARSHALL ARPT [47.70, -102.38], 3.9 NE BELDEN ARPT [48.21, -102.27], 58.4 WSW WHITE EARTH [48.17, -104.00]

05/11/11 00:00 CST	50K	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST	0	Source: Other Federal Agency

See the event episode narrative for details.

WILLIAMS COUNTY --- 17.3 S BUFORD [47.75, -103.99], 54.6 SSE TIOGA [47.70, -102.38], 33.0 ESE TIOGA [48.21, -102.27], 9.8 NW TRENTON [48.17, -104.00]

05/11/11 00:00 CST	0.25M	Flood (due to Heavy Rain / Snow Melt)
05/31/11 23:59 CST	0	Source: Other Federal Agency

See the event episode narrative for details.

This was part of historic flooding in North Dakota with statewide costs estimated around 1.5 billion dollars. Flooding was the result of significant winter snows and significant spring rains, not only in North Dakota but in Montana as well. Rocky Mountain snowpack was four to six times normal. Flooding was along the Missouri River from the Montana border to Garrison Dam. Dams were overwhelmed by the amount of water. Flooding included river, ground, and overland types. Oil wells were shuttered. Estimated damages were around \$400,000 and that is not all inclusive. There was a significant loss to agriculture by not being able to plant. A tremendous flood fight was waged against the river, and that cost is not included here. Storm Data cannot reflect the scope of this event. Information is what was available at the time of this writing. Refer to newspaper articles and other federal, state, and local sources for detailed information.

Here are some facts about the flooding in North Dakota provided by North Dakota Emergency Management. The total estimated flood cost was around \$1.5 billion. Individual and housing assistance was \$323 million; small business \$248 million; home and business reconstruction \$452 million; public response, recovery, and mitigation \$480 million; disaster unemployment for 866 claims was \$2.3 million; and the public finance authority disaster loan program approved \$56.6 million. Public infrastructure costs were \$320 million. Of the state's 53 counties, 48 were impacted, along with three tribal nations.

The Missouri River was in flood in every state in the United States of America that it runs through. This was a multi-state disaster.

(ND-Z031) GOLDEN VALLEY, (ND-Z032) BILLINGS, (ND-Z033) STARK, (ND-Z040) SLOPE, (ND-Z041) HETTINGER, (ND-Z043) BOWMAN, (ND-Z044) ADAMS

05/16/11 09:00 CST	0	High Wind (MAX 54 kt)
05/16/11 17:00 CST	0	

A rapidly strengthening surface trough over eastern Montana created a strong pressure gradient over southwest North Dakota on May 16th. This resulted in high sustained winds and a few gusts over 60 mph during the daytime hours.

BOWMAN COUNTY --- 7.6 S RHAME [46.12, -103.65]

Storm Data and Unusual Weather Phenomena - May 2011

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/20/11 10:00 MST		0	Heavy Rain
	05/20/11 10:00 MST		0	Source: Public
A storm total rainfall of 2.01 inches was reported.				
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GRANT COUNTY --- 12.0 NNW ELGIN [46.56, -101.95]				
	05/20/11 15:30 MST		0	Heavy Rain
	05/20/11 15:30 MST		0	Source: Public
A storm total rainfall of 1.50 inches was reported.				
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GOLDEN VALLEY COUNTY --- 0.5 W GOLVA [46.73, -103.99]				
	05/20/11 15:57 MST		0	Heavy Rain
	05/20/11 15:57 MST		0	Source: Broadcast Media
A storm total rainfall of 1.50 inches was reported.				
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DUNN COUNTY --- 6.4 NE NEW HRADEC [47.07, -102.79]				
	05/20/11 16:27 MST		0	Heavy Rain
	05/20/11 16:27 MST		0	Source: Broadcast Media
A storm total rainfall of 2.50 inches was reported.				
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BOWMAN COUNTY --- 22.8 SW RHAME [46.00, -103.99]				
	05/20/11 17:25 MST		0	Funnel Cloud
	05/20/11 17:30 MST		0	Source: Emergency Manager
A brief funnel cloud was observed by a trained weather spotter. This report was relayed through the Bowman County Emergency Manager.				
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SLOPE COUNTY --- 1.2 SW MARMARTH [46.29, -103.92]				
	05/20/11 20:42 MST		0	Heavy Rain
	05/20/11 20:42 MST		0	Source: Broadcast Media
A storm total rainfall of 3.00 inches was reported.				
<p>A slow moving upper level low pressure system brought widespread rainfall to west and central North Dakota on May 20th. A few areas received heavy amounts of precipitation, which contributed to increased river levels and ongoing overland flooding. Also, a brief funnel cloud developed over far southwest North Dakota.</p>				
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LA MOURE COUNTY --- 1.2 SW EDGELEY [46.36, -98.72]				
	05/21/11 19:18 CST		0	Hail (0.75 in)
	05/21/11 19:21 CST		0	Source: Emergency Manager
<p>Early evening thunderstorms developed across portions of south central and southeastern North Dakota on May 21st. One report of large hail was received in LaMoure County.</p>				
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BILLINGS COUNTY --- 3.0 NNW MEDORA [46.96, -103.56], 2.7 NNE MEDORA [46.96, -103.51], 3.2 S MEDORA [46.87, -103.52], 3.4 SSW MEDORA [46.87, -103.55]				
	05/22/11 00:00 MST		50K	Flood (due to Heavy Rain / Snow Melt)
	05/29/11 23:59 MST		0	Source: Other Federal Agency
See the event episode narrative for details.				
<p>This was part of historic flooding in North Dakota with statewide costs estimated around 1.5 billion dollars. Flooding was the result of significant winter snows and significant spring rains. Flooding was along the Little Missouri River through Medora. Flooded were a number of homes and the buildings of the Badlands Ministries Bible Camp. Estimated damages were \$50,000 and that is not all inclusive. A tremendous flood fight was waged against the river, and that cost is not included here. Storm Data cannot reflect the scope of this event. Information is what was available at the time of this writing. Refer to newspaper articles and other federal, state, and local sources for detailed information.</p>				
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DICKEY COUNTY --- 4.0 NW MONANGO [46.21, -98.64]				
	05/22/11 16:48 CST		0	Funnel Cloud
	05/22/11 16:51 CST		0	Source: Public

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
DUNN COUNTY --- 2.0 S MANNING [47.20, -102.77]				
	05/22/11 17:00 MST		0	Funnel Cloud
	05/22/11 17:00 MST		0	Source: Public
RENVILLE COUNTY --- 5.0 E TOLLEY [48.73, -101.71], 3.3 NE NORMA [48.73, -101.71]				
	05/22/11 19:41 CST		0	Tornado (EF0, L: 0.14 mi , W: 25 yd)
	05/22/11 19:42 CST		0	Source: Law Enforcement
<p>A tornado briefly touched down near Tolley in Renville County. The tornado touched down in open country and impacted no structures. No damage occurred with this brief EF0 tornado witnessed by a deputy sheriff.</p> <p>The combination of low level instability and large scale ascent associated with a large upper level low over the Northern Plains led to one confirmed weak tornado touchdown over north central North Dakota. Two funnel cloud reports were also received.</p>				
WARD COUNTY --- MINOT [48.23, -101.28]				
	05/30/11 00:00 CST		0	Heavy Rain
	05/30/11 18:00 CST		0	Source: ASOS
<p>Over two inches of rain fell over an 18 hour period. Much of this rain fell during the afternoon.</p>				
WARD COUNTY --- 4.2 NNW SURREY [48.28, -101.17], 5.4 SSW SURREY [48.16, -101.19], 5.3 SW MINOT [48.18, -101.37], 1.8 NE BURLINGTON [48.30, -101.39]				
	05/30/11 15:30 CST		5K	Flash Flood (due to Heavy Rain)
	05/30/11 18:00 CST		0	Source: Mesonet
<p>Heavy rain resulted in flash flooding conditions in the city of Minot during the late afternoon.</p> <p>Slow moving and redeveloping thunderstorms brought heavy rainfall to portions of north central North Dakota May 30th. Flash flooding conditions occurred across central Ward County, including the city of Minot, due to the heavy rainfall.</p>				
(ND-Z001) DIVIDE, (ND-Z002) BURKE, (ND-Z003) RENVILLE, (ND-Z004) BOTTINEAU, (ND-Z005) ROLETTE, (ND-Z009) WILLIAMS, (ND-Z010) MOUNTRAIL, (ND-Z011) WARD, (ND-Z012) MCHENRY, (ND-Z013) PIERCE, (ND-Z017) MCKENZIE, (ND-Z018) DUNN, (ND-Z019) MERCER, (ND-Z020) OLIVER, (ND-Z021) MCLEAN, (ND-Z022) SHERIDAN, (ND-Z023) WELLS, (ND-Z025) FOSTER, (ND-Z031) GOLDEN VALLEY, (ND-Z032) BILLINGS, (ND-Z033) STARK, (ND-Z034) MORTON, (ND-Z035) BURLEIGH, (ND-Z036) KIDDER, (ND-Z037) STUTSMAN, (ND-Z040) SLOPE, (ND-Z041) HETTINGER, (ND-Z042) GRANT, (ND-Z043) BOWMAN, (ND-Z044) ADAMS, (ND-Z045) SIOUX, (ND-Z046) EMMONS, (ND-Z047) LOGAN, (ND-Z048) LA MOURE, (ND-Z050) MCINTOSH, (ND-Z051) DICKEY				
	05/31/11 09:00 CST		0	High Wind (MAX 50 kt)
	05/31/11 17:00 CST		0	

Deep low pressure lifting north into southern Canada resulted in strong winds across all of west and central North Dakota May 31st. Sustained winds of 40 mph and peak gusts up to 60 mph were reported during the morning and afternoon.