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Floodwaters Breach Michigan Dams, Forcing Evacuations

The disaster for towns on the Tittabawassee River was compounded by the effects of the coronavirus.

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This briefing has ended. Read about how the flooding disaster in Michigan came on top of the pain of the pandemic.

Here's what you need to know:

- Residents in nearby towns, including Edenville, Sanford and Midland, were evacuated.
- The area around Dow's headquarters in Midland was flooding.
- Onlookers gathered in Midland's threatened downtown.
- Social distancing could be difficult for evacuees, the governor said.
- Regulators worried in 2018 that the Edenville Dam could not handle heavy flooding.
- Trump tweeted support, after threatening to withhold funds from the state over voting by mail.

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Two dams in Central Michigan were breached by rain-swollen floodwaters on Tuesday, forcing the evacuation of thousands of residents and prompting officials to warn of life-threatening danger.

The failures of the Edenville Dam and the Sanford Dam, about 140 miles northwest of Detroit, led the National Weather Service to issue a flash-flood warning for areas near the Tittabawassee River, with downstream effects expected from Midland to Saginaw.

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On Wednesday, the Weather Service said that the Tittabawassee River had reached 34.72 feet just before 9 a.m., a full 10 feet above flood levels, and that it was continuing to rise. The service said that life-threatening flooding along the river would continue during the day.

Bridges across the river were closed and many roads were under water, Midland County officials said.

"There is no way into our city, and many of the highways have water barriers, and that will probably get worse this evening," said Holly Miller, the executive director of United Way of Midland County. "It is hard to know what is going on."

About 10,000 people were evacuating from Midland, which has a total population of more than 41,000, and about 1,000 more residents in townships outside of the city were ordered to leave their homes, Bridgette Gransden, a Midland County spokeswoman, said in a telephone interview on Wednesday. She said more homes could have been affected.

[Read about the new crisis Michigan is facing: flooding.]

"Midland won't see the peak of this until 8 p.m.," said Janine Ouderkirk, the executive director of Shelterhouse, which provides housing to domestic violence and sexual assault survivors. Her organization will help provide food, blankets and clothing to evacuees. "We do anticipate an increased need and influx," she said.

Ms. Miller said that at least one nursing home and one retirement community were among the residences that had been evacuated.

The area around Dow's headquarters in Midland was flooding.

Midland is the site of one of the nation's most extensive toxic cleanup sites — the area surrounding a sprawling Dow chemical complex — which raised concerns of a wider environmental fallout from the dam disaster and flooding.

The compound, which also houses the chemical giant's world headquarters, lies on the banks of the Tittabawassee River.

Kyle Bandlow, a Dow spokesman, confirmed that as of 10 a.m. Wednesday, floodwaters had reached the site's outer boundaries, and were entering ponds designed to hold storm water runoff.

Given the extent of the expected flooding around Midland, it "seems unlikely the Dow plant site will be spared," Michelle Hurd Riddick, a member of the environmental group Lone Tree Council, said in a text message from Midland.

The threat to the Dow complex highlights the risks to Superfund and other toxic cleanup sites posed by the effects of climate change, which include more frequent and severe flooding. For more than a century, the Dow complex has manufactured a range of products including Saran Wrap, Styrofoam, Agent Orange and mustard gas. Over time, Dow released effluent into the water, leading to dioxin contamination stretching more than 50 miles along the Tittabawassee and Saginaw Rivers and into Lake Huron.

Research has shown that dioxins can damage the immune system and can cause reproductive or developmental problems and cancer.

Mr. Bandlow said the company was "implementing its flood preparedness plan, which includes the safe shutdown of operating units on site," which still manufactures plastics and other chemical products.



Crowds gathered in Midland to see the floodwaters as the Tittabawassee River rose. Emily Rose Bennett for The New York Times

Onlookers gathered in Midland's threatened downtown.

The flooding in Central Michigan, which followed torrential rainstorms earlier in the week, played out under blue skies and balmy spring temperatures giving the scene an unsettling air of normalcy amid disaster.

Main Street in downtown Midland, which had been transformed into a wide pedestrian thoroughfare filled with benches, Adirondack chairs, firepits and blooming trees, was filled with people at midday who were curious about the rising waters less than a block away. A pair of jet skiers roared down the Tittabawassee River, which was expected to rise nearly 10 feet above flood level. A garbage can floated past nearly submerged stop signs.

The city is home to Dow, the chemical giant, whose influence is apparent everywhere in town, from the Midland Center for the Arts and Dow Gardens to H.H. Dow High School, one of the city's two high schools, and the Dow Diamond minor league ballpark.

Sue Baranski was forced to evacuate her home in Sanford, upstream from Midland, on Tuesday night as the floodwaters rose there. She found refuge with her friend Linda Calzadillas in Midland, and the pair drove down to survey the river, which had already swamped the city's Farmer's Market and was edging toward Main Street.

Ms. Baranski said her home in Sanford was OK, but the streets leading to it were flooded and closed.

"It's scary looking," she said. "When you're sitting in a house high and dry, looking at the tulips blooming, you don't get the full effect of what the county is going through. It's disastrous. Between the devastation from the flooding, and the virus, and the small business owners trying to make their way through that, it's just too much."

Jeff De Vaney, the owner of the Amazing Deli on Main Street, was hit with a triple whammy. His business was just getting back to normal earlier this year, after the city closed the road in front of his business for nearly a year to rebuild the pedestrian walkway.

"Everything was going really good — February and January were the best months that we've had in years — and then the Covid hit," he said. "Covid just really took the wind out of our sails. Our normal production has been down about 50 percent."

Now, instead of being able to sell to the crowds that were gathering Wednesday, the deli and much of downtown Midland lost power and had to shut down. The rising waters were beginning to threaten the rear and basement of his building.

"We can't seem to catch a break," Mr. De Vaney said.

Social distancing could be difficult for evacuees, the governor said.

Some residents sheltered at Meridian Junior High School after evacuation orders were put into effect for parts of Sanford, Mich. Katy Kildee/Midland Daily News, via Associated Press

At a news conference on Wednesday, Gov. Gretchen Whitmer of Michigan said the flooding in Midland was "devastating," a disaster compounded by the coronavirus outbreak.

"It's hard to believe that we're in the middle of a 100-year crisis, a global pandemic, and we're also dealing with a flooding event that looks to be the worst in 500 years," Ms. Whitmer said.

Residents were still encouraged to wear masks and practice social distancing, even if they were forced to evacuate their homes, she said. "We are still in the midst of Covid-19."

She acknowledged that distancing would be difficult in shelters that had been set up in the area.

In Sanford, a village of about 580 people in Midland County, water coursed through the streets, video from local news agencies showed. Some single-story structures were submerged nearly over doorways, and water had swept across a bridge over the Tittabawassee River, photos and video showed.

Midland County public schools were taking in people who had evacuated, including large crowds of older residents, the county's superintendent of public schools, Michael Sharrow, said on Twitter.

"Tough to see them go through this," he wrote, posting photos of residents and supplies in a school gymnasium.

It was the second time in 24 hours that residents were told to evacuate. Four to seven inches of rain drenched the area on Sunday and Monday, according to the National Weather Service.

Regulators worried in 2018 that the Edenville Dam could not handle heavy flooding.

Water surged at the dam on Wixom Lake in Edenville, Mich., on Tuesday. Kaytie Boomer/The Bay City Times, via Associated Press

The Federal Energy Regulatory Commission, which oversees hydroelectric dams, revoked the Edenville Dam's license in 2018 because of a "longstanding failure to increase the project's spillway capacity to safely pass flood flows," among other issues.

The agency said it had been pressing the dam's owner, Boyce Hydro Power, since 2004 to upgrade the dam so it could survive a "probable maximum flood event," meaning the worst combination of bad weather and high runoff that could reasonably be expected. Without an upgrade, the agency's engineers believed the dam could handle only about 50 percent of the floodwaters from such an event.

To comply, the dam would need either a bigger spillway or better protection against damage from overtopping, the agency said.

On Wednesday, the commission ordered the company, which also owns the Sanford Dam, to open an independent forensic investigation into the operation of the two failed dams. And Governor Whitmer vowed to pursue "every potential legal recourse" against whoever was responsible for the failures.

"The initial readout was that this was a known problem for a while," the governor said, "and that's why it's important that we do our due diligence and we take our action as merited."

The Edenville Dam, a set of earthen embankments about 6,600 feet long and up to 54.5 feet high, spans two rivers, the Tittabawassee and the Tobacco, where they join. The reservoir behind the dam is known as Wixom Lake. The Sanford Dam is downstream on the Tittabawassee.

Like many states across the country, Michigan has a large number of deficient or aging dams. The state chapter of the American Society of Civil Engineers said in a 2018 report that two-thirds of the state's dams were older than the typical 50-year designed life span, and many were abandoned, poorly maintained or inadequate to resist severe floods.

The state averages about two dam failures a year, though they tend to be smaller structures that pose little threat to public safety, the report said.

Dan Reicher, a former assistant energy secretary in the Clinton administration, said dams under state jurisdiction often go woefully ignored.

"There has not been adequate attention paid to the safety of U.S. dams, particularly the nonpowered facilities," said Mr. Reicher, who now heads an energy policy institute at Stanford University. "The overall price tag for addressing the major problems is about \$70 billion."

The federal commission generally provides better oversight of the dams under its purview than state agencies do, according to Robert McCullough of McCullough Research, based in Portland, Ore. As a result, he said, federally regulated dams generally have performed well.

"Lots of people's dams fail, but it doesn't happen in the U.S.," Mr. McCullough said. "It's very unusual."

 $The flooding in Midland came after the failure of two dams in the area. \ \ Emily Rose Bennett for The New York Times$

Trump tweeted support, after threatening to withhold funds from the state over voting by mail.

President Trump tweeted on Wednesday morning that the Federal Emergency Management Agency and the military had been deployed to Michigan to assist with disaster response. But he also used the occasion to repeat his criticism of Governor Whitmer for not lifting coronavirus restrictions faster.

"Governor must now 'set you free' to help," the president posted.

The message came after Mr. Trump incorrectly accused Michigan's Democratic secretary of state of mailing ballots to all of the state's registered voters. In that message earlier on Wednesday, Mr. Trump threatened to withhold unspecified federal funds from Michigan if the state proceeded to expand vote-by-mail efforts. He made a similar threat against Nevada.

The Twitter post on voting was the latest in a series of broadsides the president has aimed at the vote-by-mail process, which has become the primary vehicle for voting in an electoral system transformed by the coronavirus pandemic. Mr. Trump has claimed, despite overwhelming evidence to the contrary, that voting by mail is rife with fraud.

Michigan's secretary of state, Jocelyn Benson, announced on Tuesday that her office would send absentee ballot applications — and not actual ballots, as the president claimed — to all of the state's voters, as election officials elsewhere have done during the health crisis.

Governor Whitmer responded to Mr. Trump's comments at her midday news conference on Wednesday, saying, "To see Twitter this morning and to see rhetoric like that is disheartening."

She added, "We are all Americans. We are all fighting for our lives here, and the economy."

The president will be in Michigan on Thursday, and his opponents are on the attack.

Mr. Trump is scheduled on Thursday to visit a Ford plant in Ypsilanti, where the automaker has been assembling ventilators. It would mark his first trip to the state since January and comes at a time when his campaign advisers are increasingly concerned about his chances there.

Mr. Trump's tweets a day ahead of the trip were seen as unhelpful to boosting his political standing in a critical state, and his political opponents immediately pounced on it.

Bill Kristol, a prominent conservative Trump critic, said on Twitter that his group, Defending Democracy Together, was buying airtime in Michigan ahead of the president's visit for a new advertisement in defense of safe and secure voting.

"Today President Trump threatened to harm the people of Michigan because their elected officials are making it easier for them to vote," Mr. Kristol tweeted.

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