

Mid-Michigan Flooding: Emergency Management

Kimberly Zimmer, P.E.

MDOT: Bay Region

Associate Region Engineer - Operations

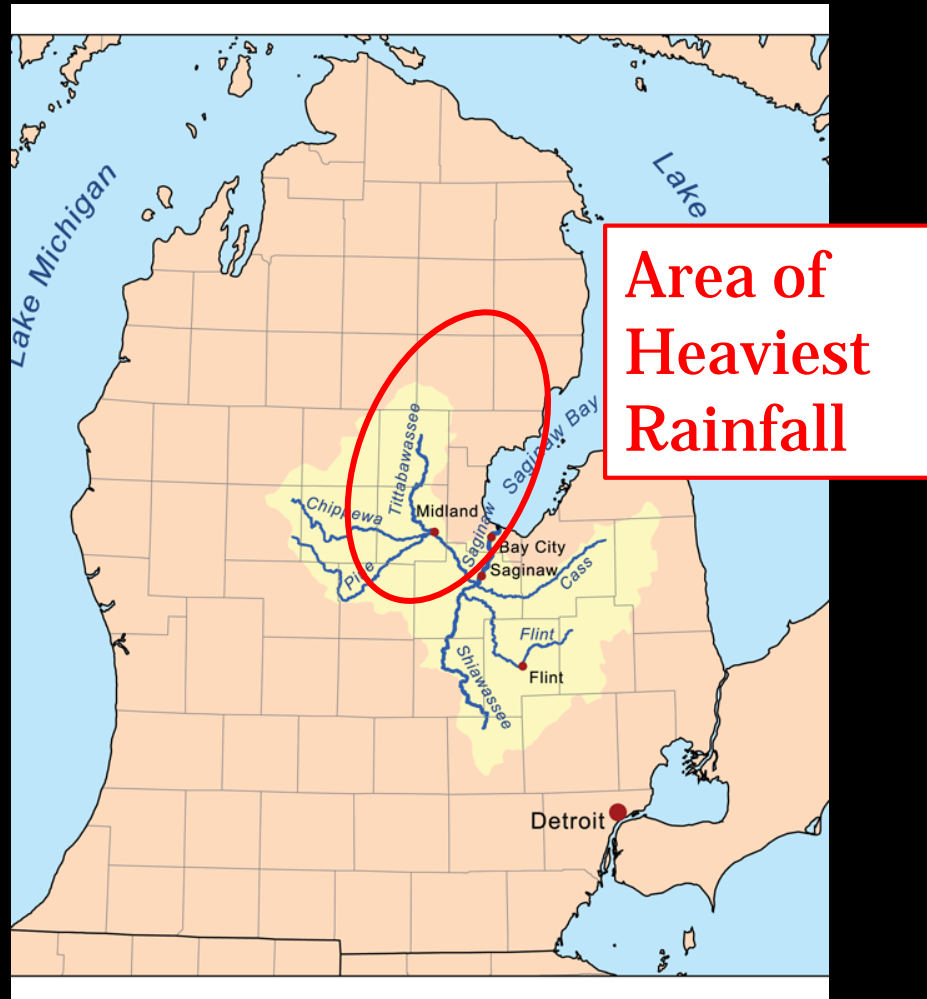


Mid – Michigan Flooding Event 2020

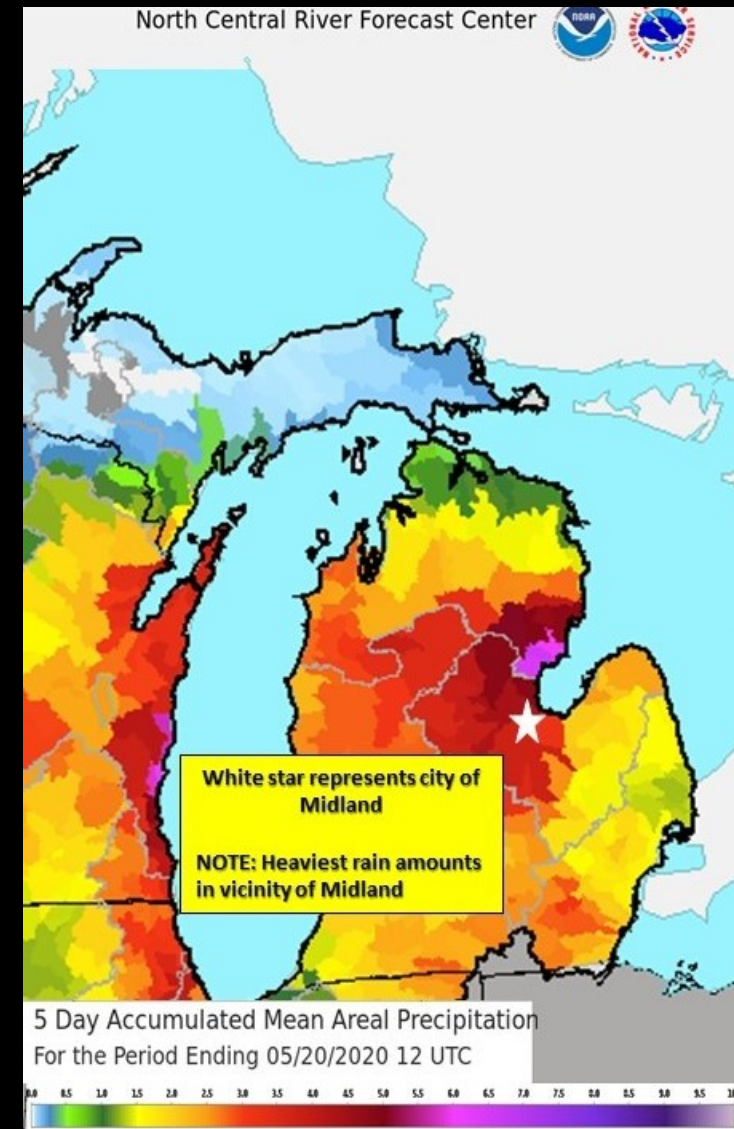
- May 17 – 20, 2020
- 500 yr rain event
- Flooding in Midland, Gladwin, Arenac, Saginaw, Iosco counties
- Dam breaches in Midland and Gladwin counties
- Presidential and Governor's Declaration of Emergency
- Largest Emergency Relief Event in Michigan



Mid – Michigan Flooding Event 2020



Tittabawassee/Saginaw River Watershed



Edenville Dam / Wixom Lake



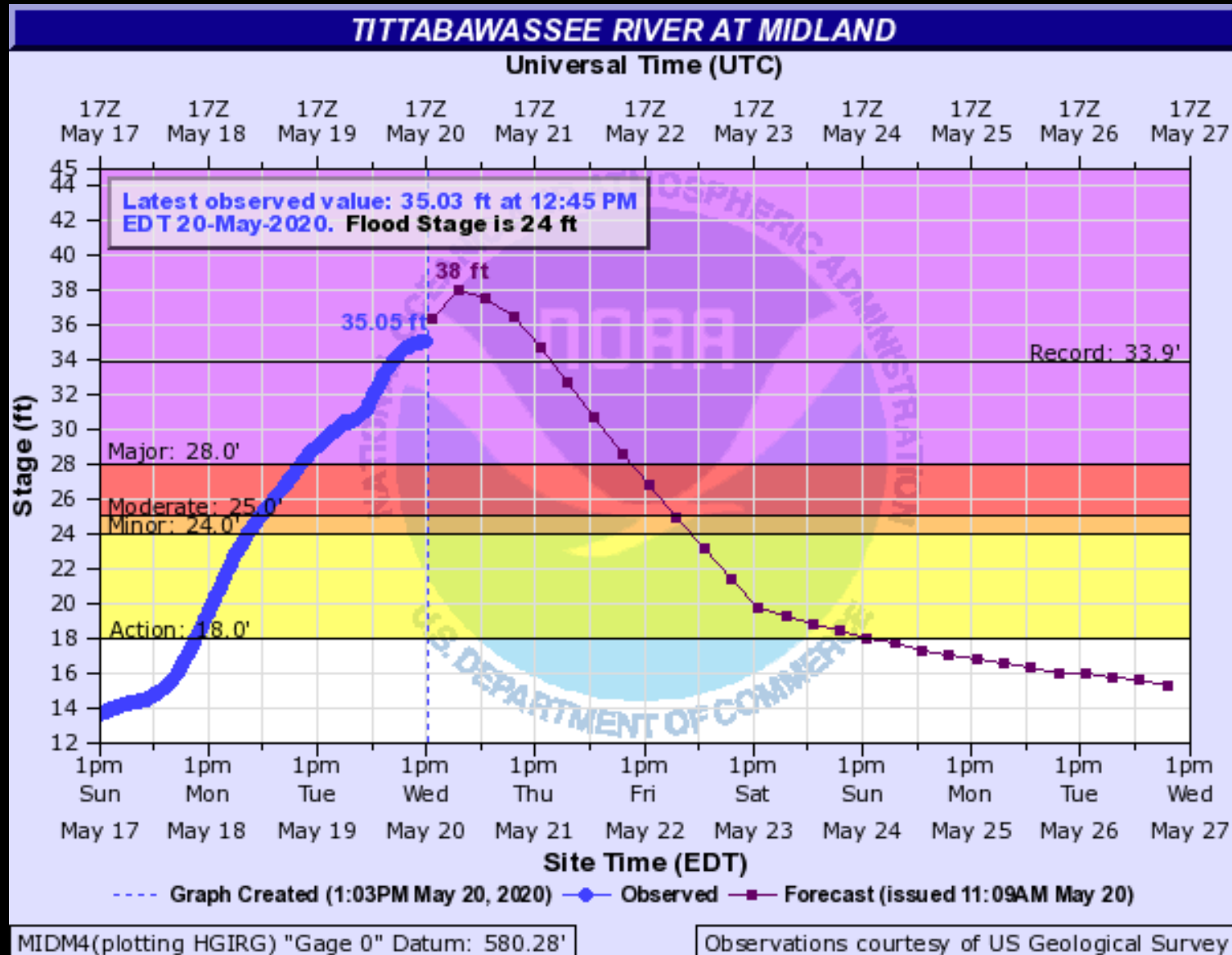
May 19, 2020

Sanford Dam / Sanford Lake



May 19, 2020

Tittabawassee River Level



May 19-20, 2020

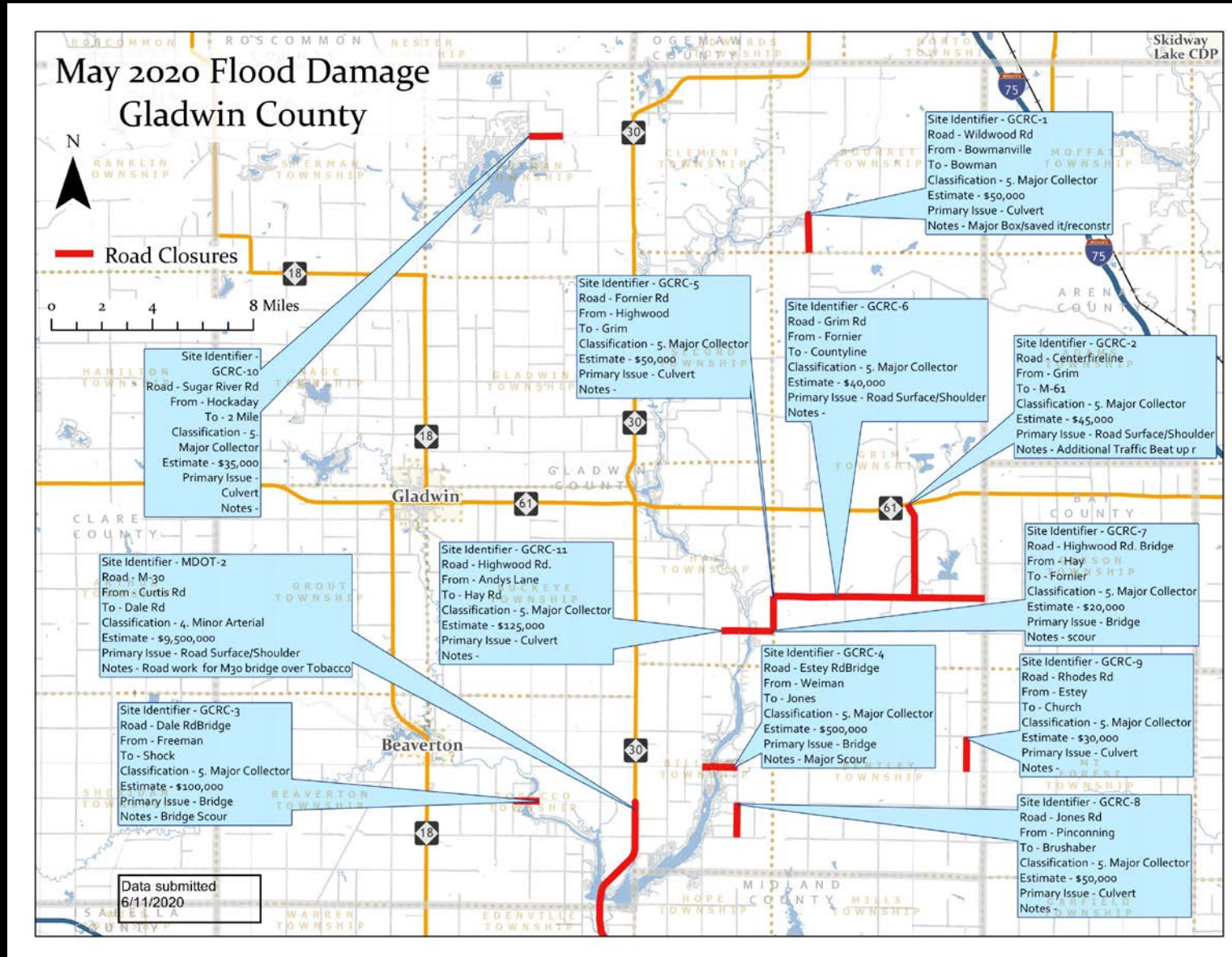
City of Midland



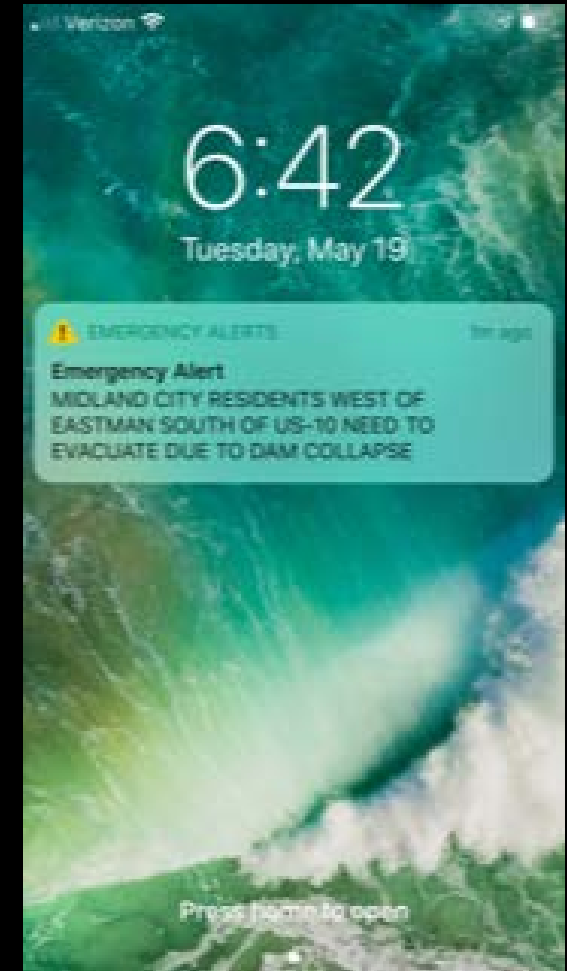
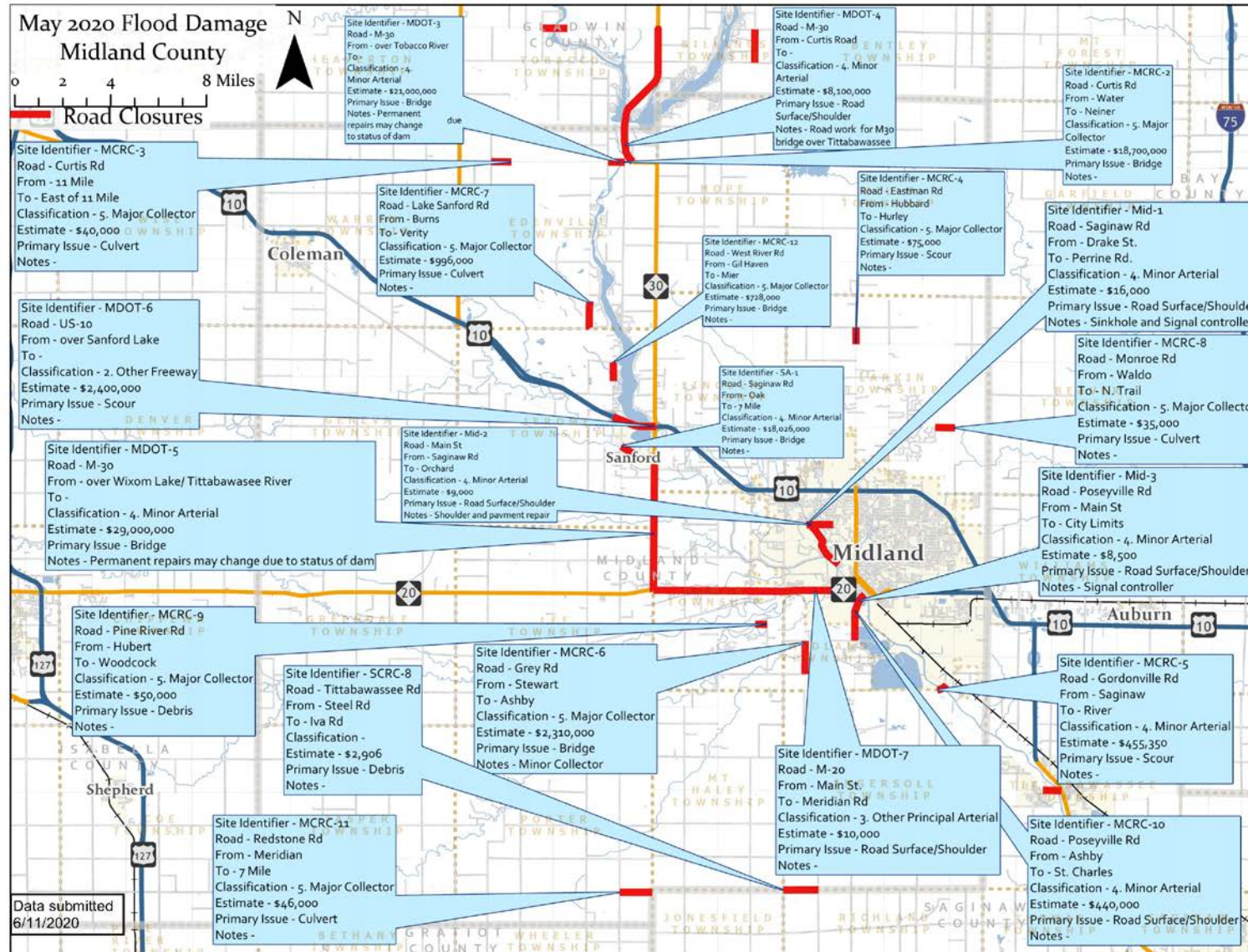
May 19-20, 2020



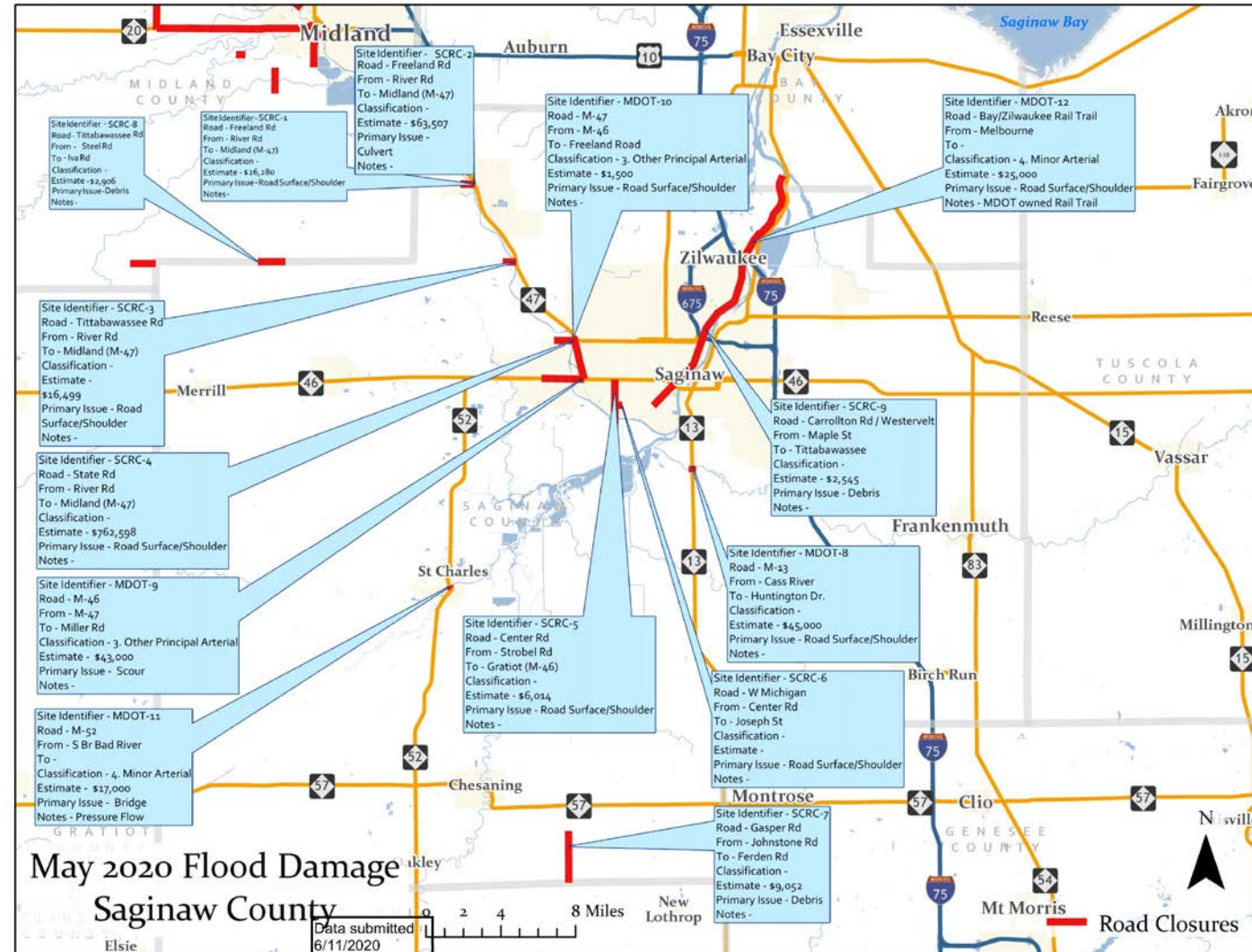
Gladwin County Closures



Midland County Closures



Saginaw County Closures



Arenac County Closures



Response Activities during the Event

- County and State Level Emergency Operations Centers Activated
- Collaboration between Federal, State and Local Governments
- Continuous Communication:
 - Cell Phones/Devices
 - Text Messaging
 - Social Media
 - Websites
 - Online Meetings
- Evacuations
 - COVID Precautions



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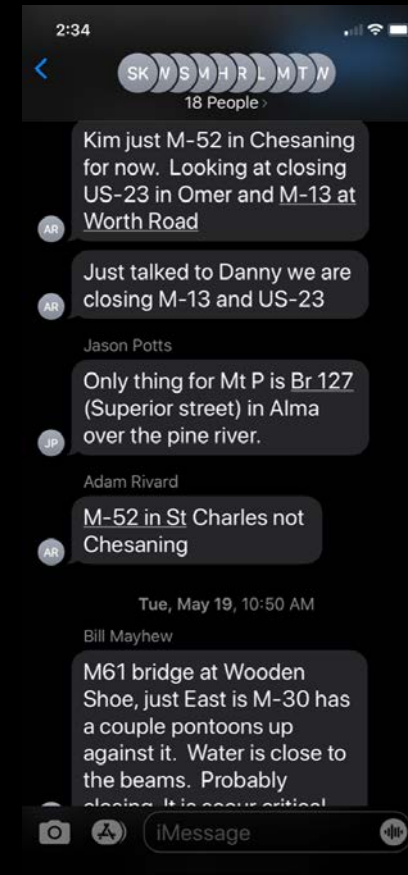


Image Courtesy: MDOT Safety & Security

He said to have them come to US10 under the M-30 bridge around 330. Jason Potts is the maintenance coordinator

Thank u for your help. We appreciate it!



A screenshot of the iMessage app icon in the dock. The icon is a blue rounded rectangle with a white camera lens and a microphone icon. The word "iMessage" is written in white text in the center. To the left of the icon are two other dock icons: a camera and an app icon. To the right is a volume icon. A white horizontal bar is visible at the bottom of the screen.

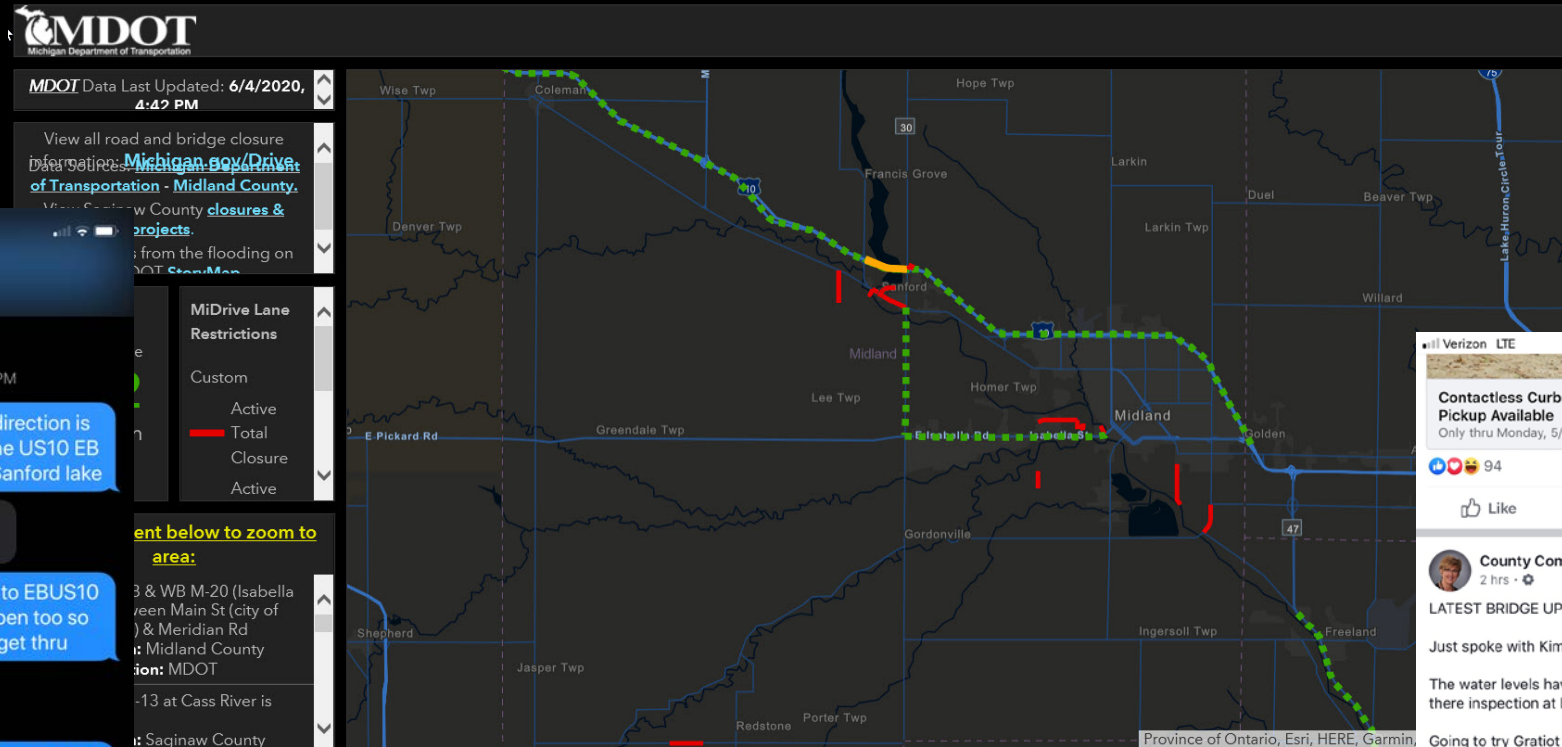
Awesome!!! Great work!
Thank you!!!

You guys are awesomesauce

Have a good night!

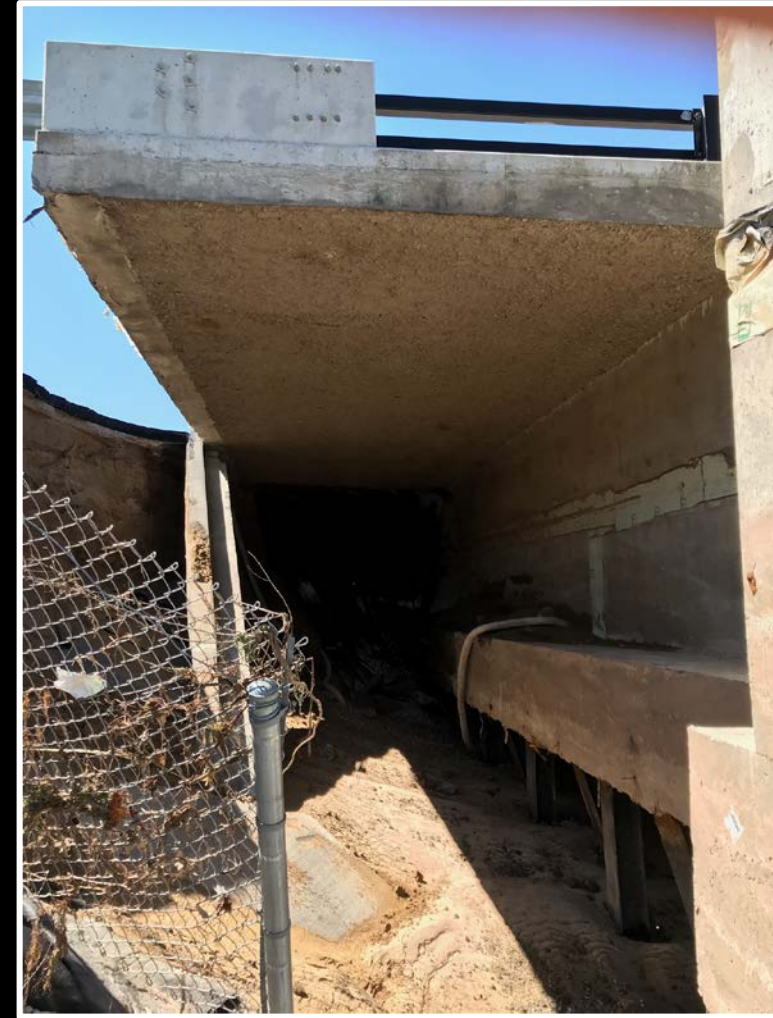
Delivered

U2



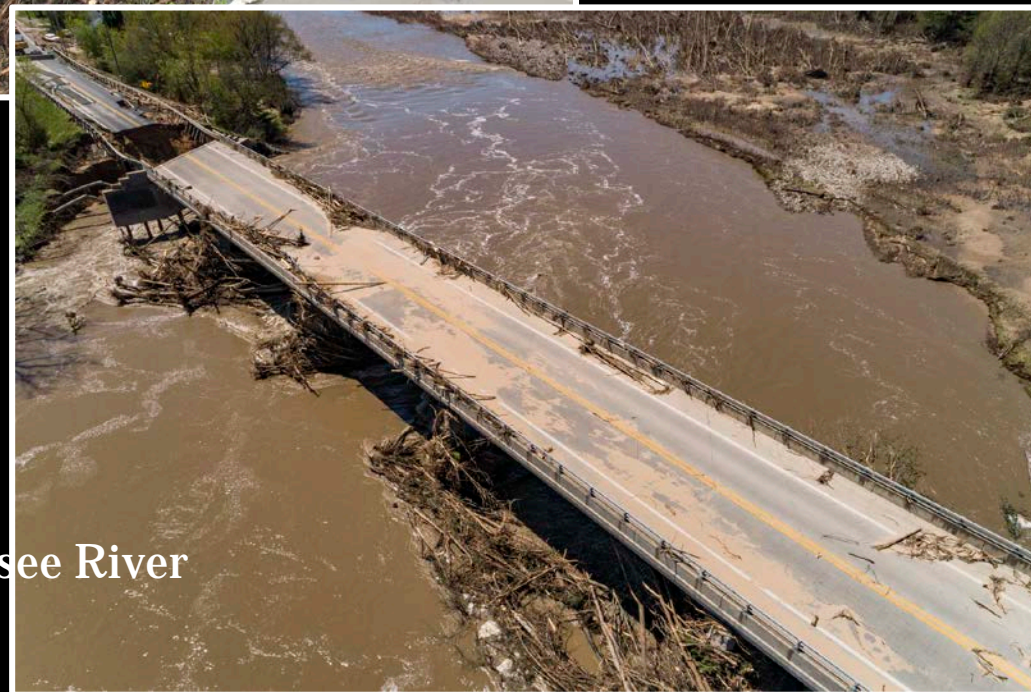
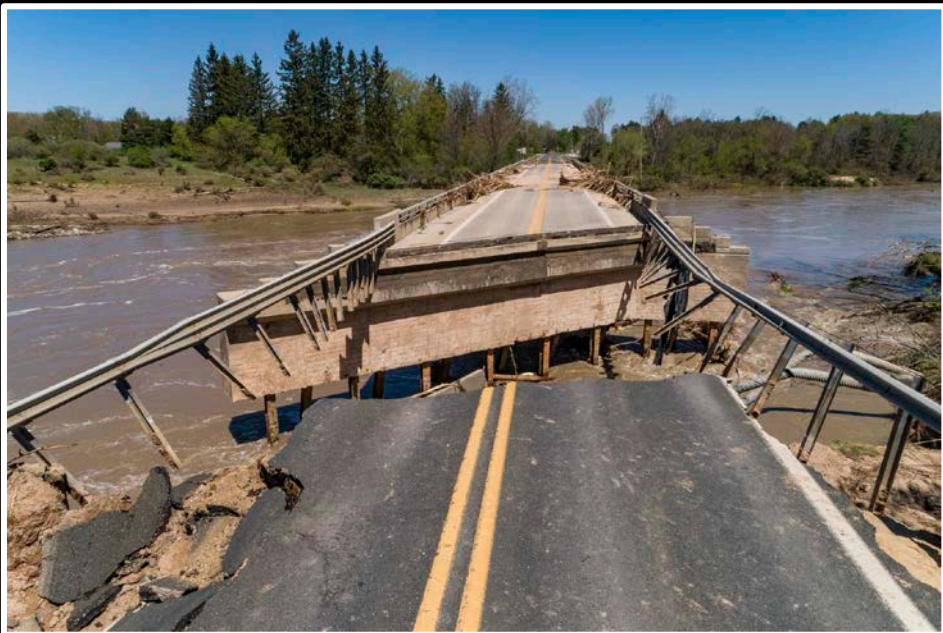
A screenshot of a Facebook post from County Commissioner Kathy Dwan. The post is titled "LATEST BRIDGE UPDATE FROM THE ROAD COMMISSION:" and contains text about water levels for MDOT inspections on Gratiot and M-52 roads. The post has 94 reactions (likes, loves, and wow) and 4 comments. Below the post, there are two comments: one from Sue Downey saying "Thanks for the update Kathy." and another from an unnamed user with a sad face emoji. The bottom of the screen shows the Facebook navigation bar with icons for home, friends, marketplace, groups, notifications, and a menu.

Post Event: Site Damage Assessments



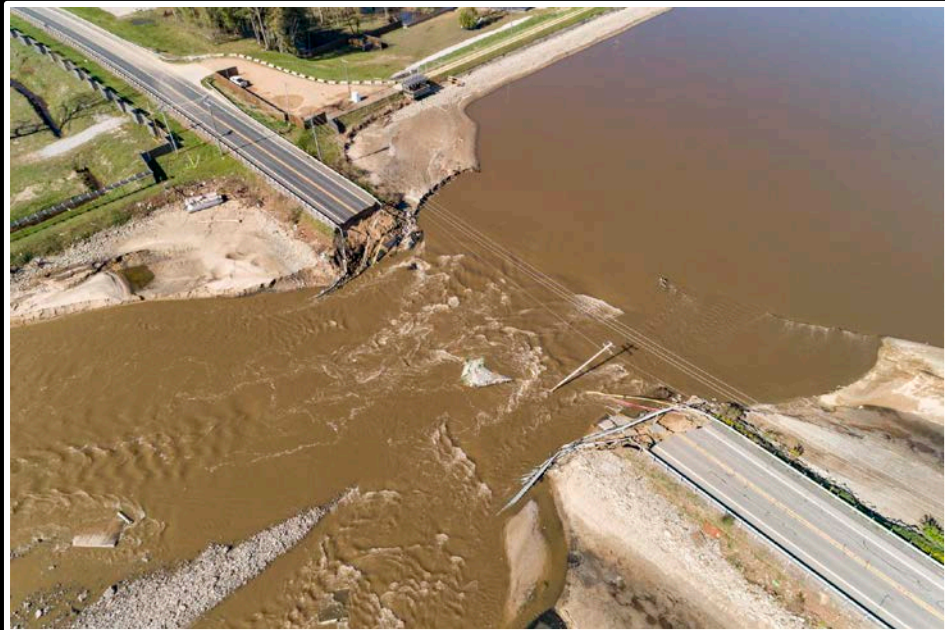
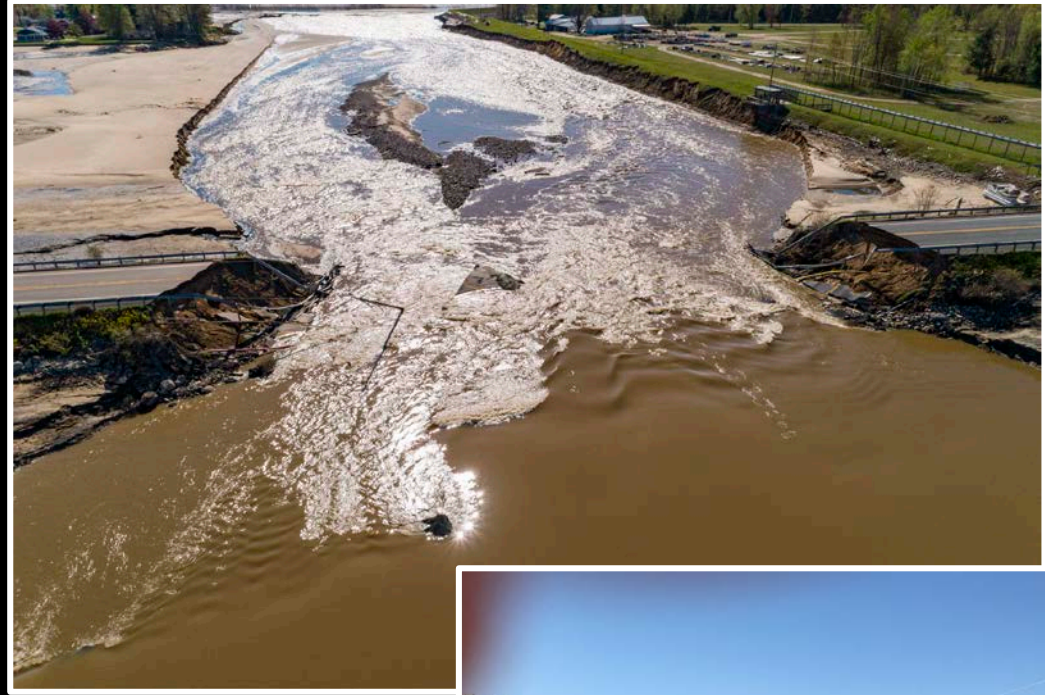
US-10 over Sanford Lake
Midland County

Post Event: Site Damage Assessments



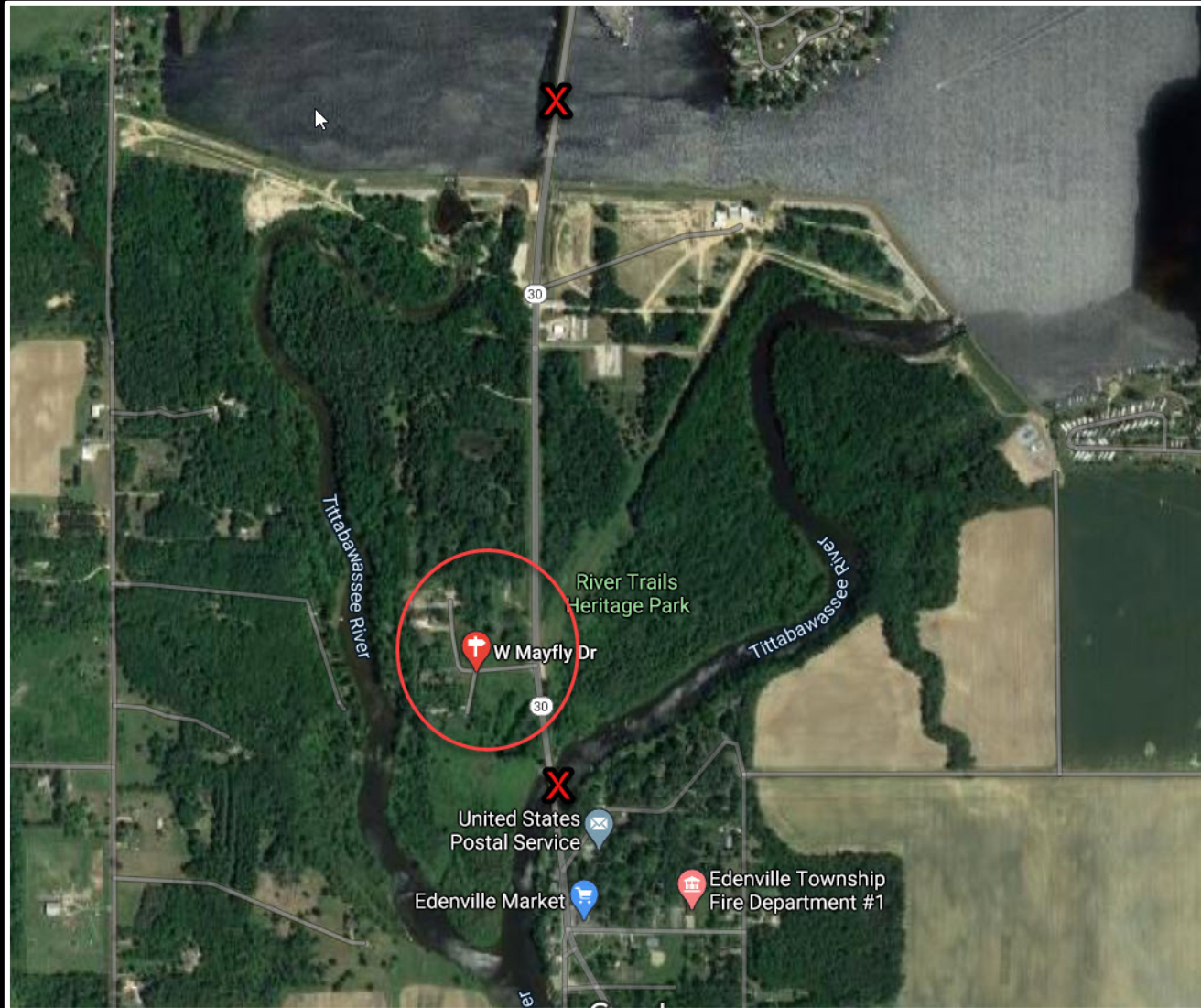
M-30 over Tittabawassee River
Midland County

Post Event: Site Damage Assessments



M-30 over Tobacco River
Gladwin County

Post Event: Site Damage Assessments



Rivard Family – Edenville Resident

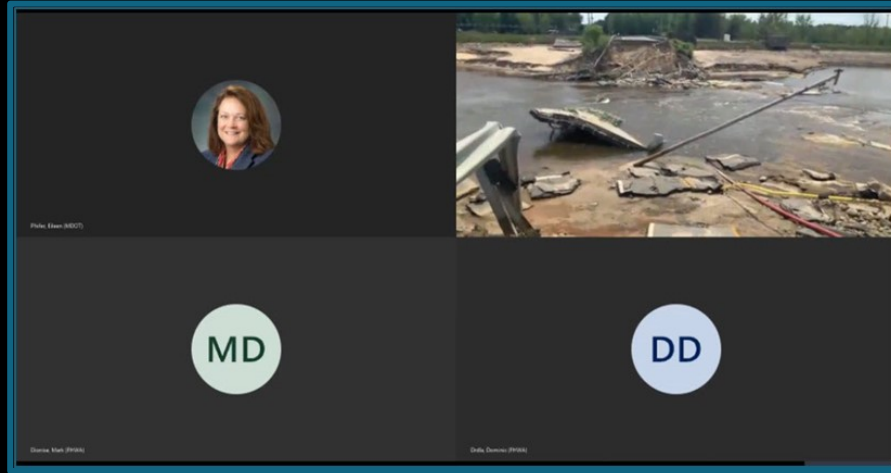
Post Event: Site Damage Assessments



Saginaw Road – Village of Sanford
Midland County

Virtual Site Damage Assessments

- FHWA Travel Restrictions
- Innovative field assessments:
 - Facetime
 - Microsoft Teams
 - Emily
- Staff placed strategically
- Recorded field meetings
- Q&A



Emergency Response

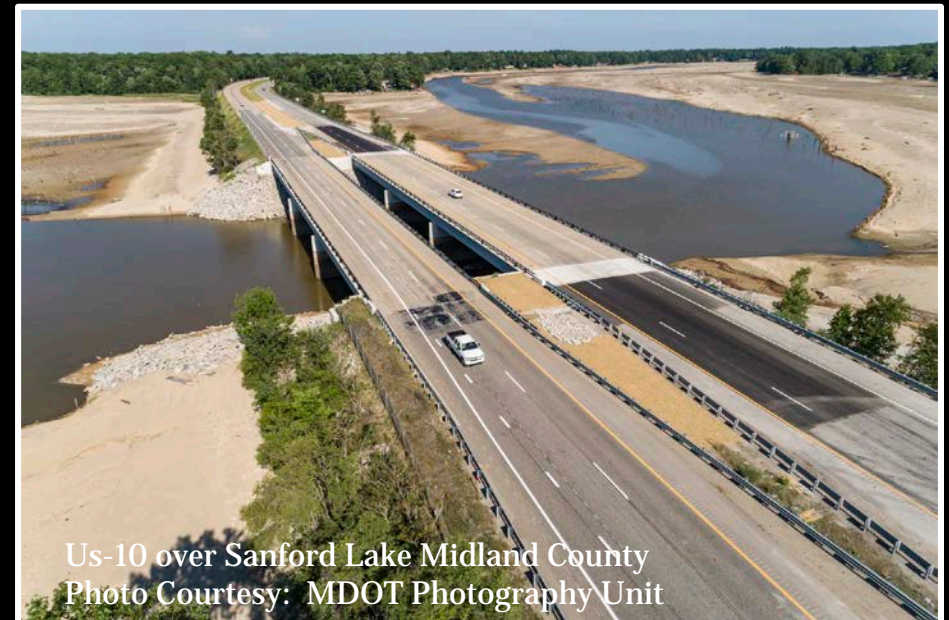
Reflecting on the response to event:

- Limited Resources:
 - Staff
 - Traffic Control Devices
 - Routes
- Use of Technology for Communications and Public Engagement
- Use of Emergency Contracting Procedures
- Understanding Emergency Relief Process
- Relationships
 - MDOT
 - Federal, State, Local Governments
 - Emergency Responders & Emergency Operation Centers
 - 911 Central Dispatch
- Resilient & Reactive Staff

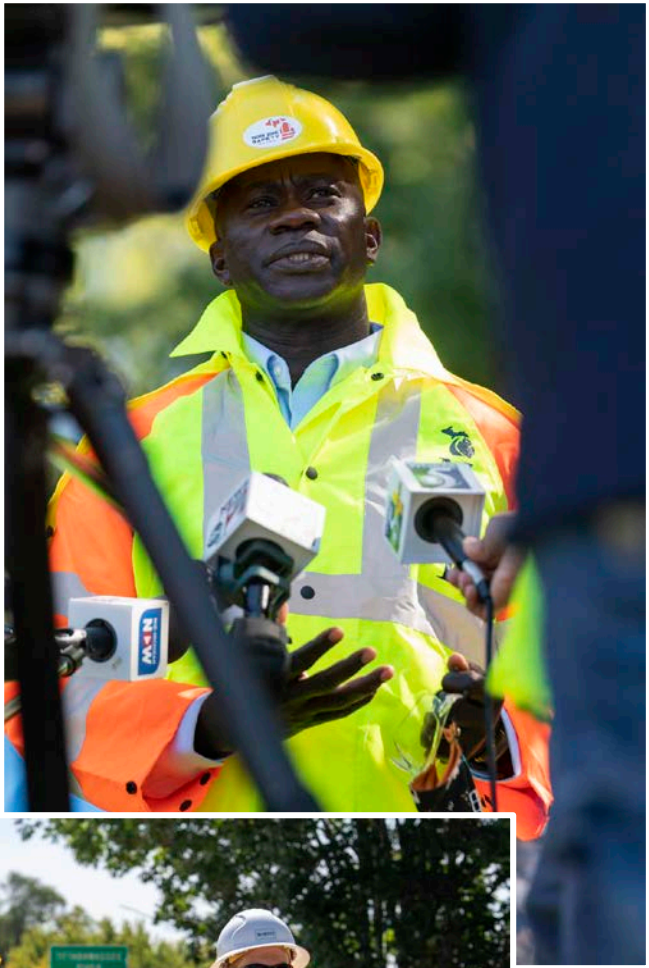


Status/Progress Update:

- Estimated Repair Costs: Approximately \$104M
- 117 DDIR's (63 MDOT/54 Local)
- Consultant Contracts
 - DDIR's
 - Design Services
- Emergency/Expedited Contracts:
 - US-10 over Sanford Lake (2 contracts)
 - Debris Removal at M-30 bridges
 - M-30 over Tittabawassee River (Repairs)
 - M-65 Detour Route
 - US-23 over AuGres River
 - Saginaw Road - Village of Sanford
 - Curtis Road – Midland County
 - M-30 over Tobacco River (soon)
- Ongoing meetings with EGLE, FLTF



Status/Progress Update:



Questions

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