2019 IDOT Flood Response

Kampsville Ferry/IL-108 Project

Illinois Transportation & Highway Engineering Conference
February 25, 2020



Brandon Oxley

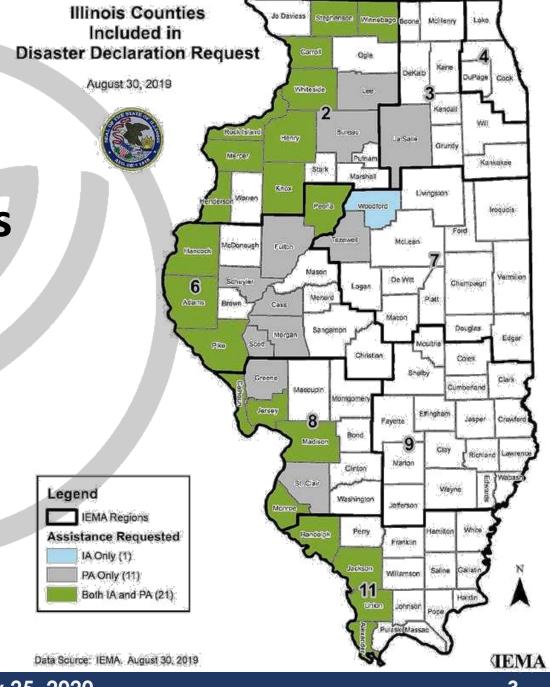
Communications Center Manager

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District 8 Operations Engineer

2019 FLOOD OVERVIEW



- Flooding Began in Feb 2019, continued most of Summer
 - Multiple Rivers Impacted
- Multiple Disaster Proclamations Issued by Gov. Pritzker
 - -36 Counties in Total
- Federal Disaster Declaration
 - -27 Counties Approved
- FEMA coordination remains ongoing...





Flood Impacts



1,000+ miles of roadway & bridges damaged or inaccessible



State-Level Disaster Management



Illinois Emergency management Agency (IEMA) oversees State efforts

State Emergency Operations
Center (SEOC) activated for
multi-agency coordination
State Unified Area Command (SUAC)
deployed locally as needed.

WebEOC Information Sharing Portal

"Resource Requests" generated to track response effort.



Inter-Agency Partnerships

Provided necessary surge in manpower

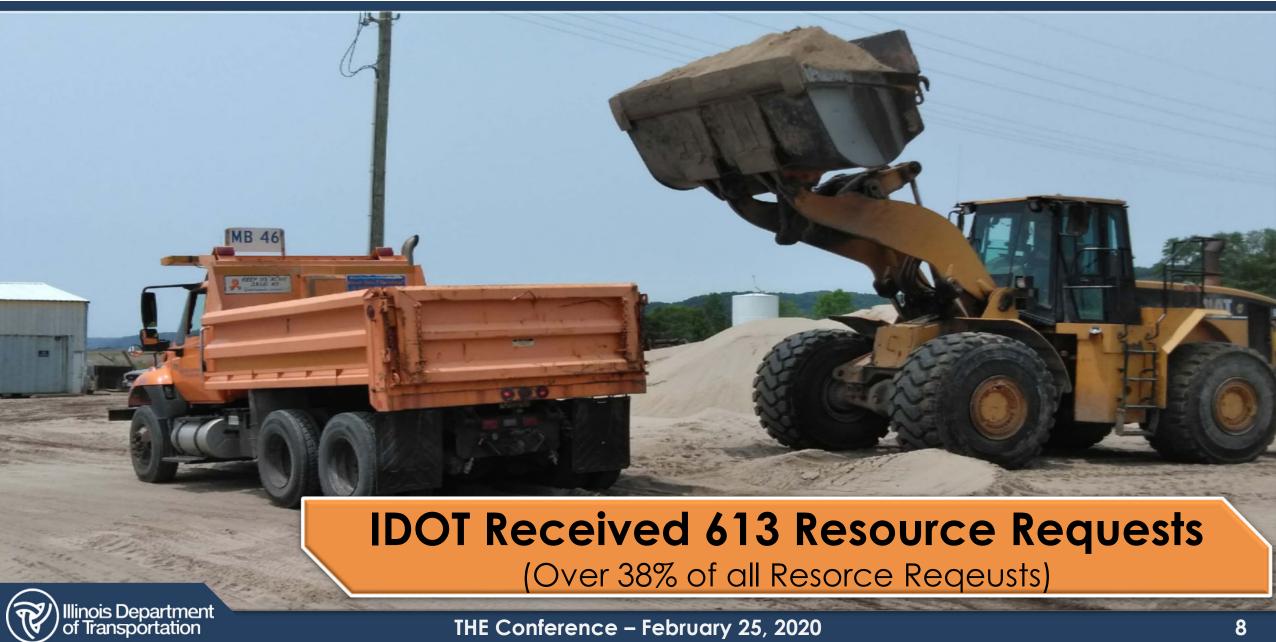


Illinois National Guard stacked sand bags, monitored levee conditions, responded to levee boils, and more





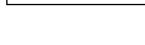
IDOT Response



Aviation Assets Played an Important Role

Manned & Unmanned Aircraft Systems (UAS/drones) deployed along multiple impacted rivers throughout the State.

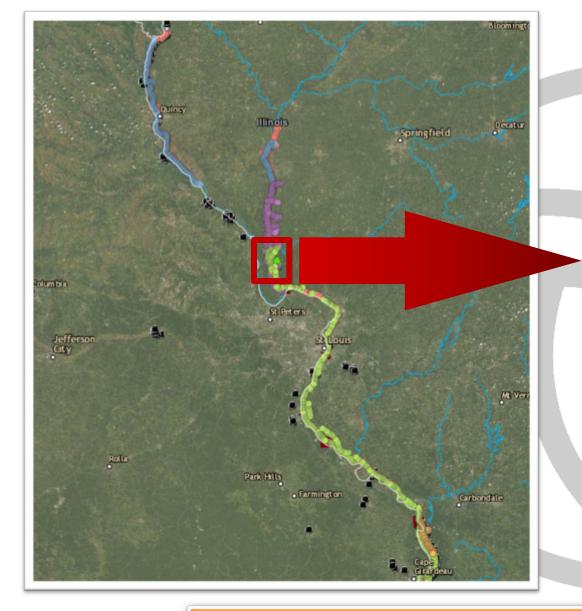


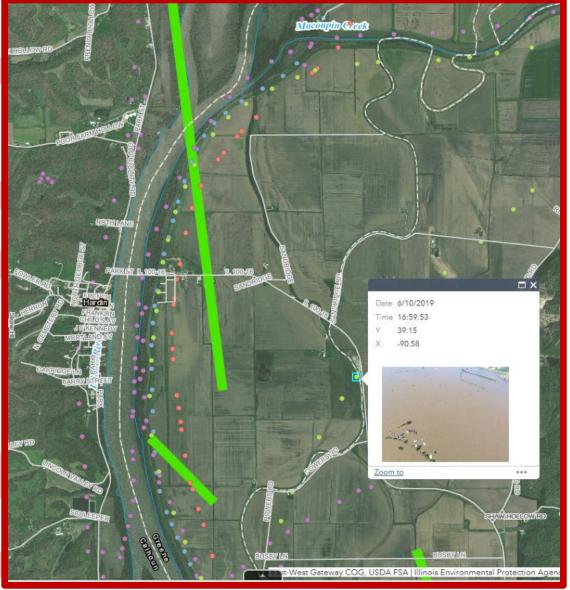


Prairie du Rocher / Hardin

Hundreds of miles of levees were flown - many, several times - to document condition & identify potential failure points.







GIS portal was developed to share georeferenced data.



Aircraft gathered information to help establish emergency routes for evacuation & first responders.





Grafton / McClure https://youtu.be/TSPWqbAM-GY

In total, over a thousand miles of river across 40+ counties were flown.



KAMPSVILLE FERRY IL-108 DETOUR





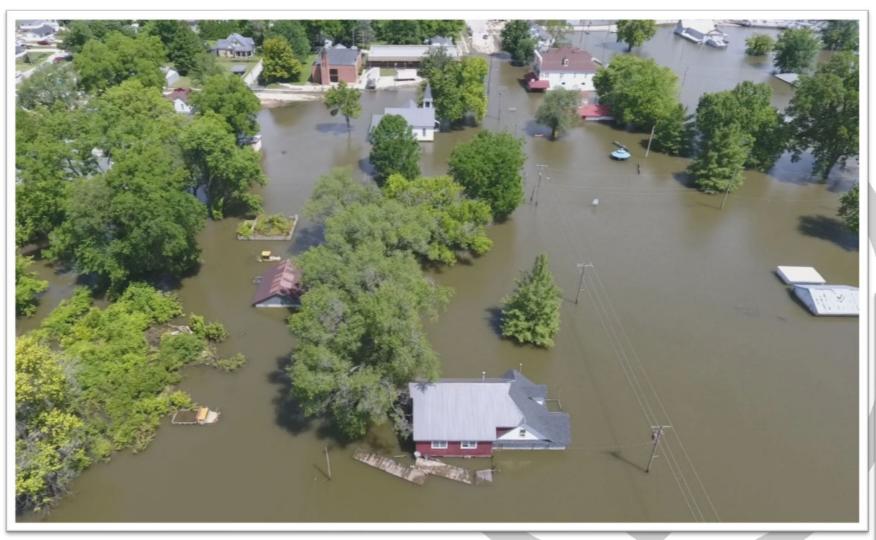
As flood waters continued to rise along the Mississippi, the Kampsville Ferry was the only way to access a large portion of Calhoun County.





IL-108 also became impassible, and an urgent solution was required to ensure the safety of local residents.









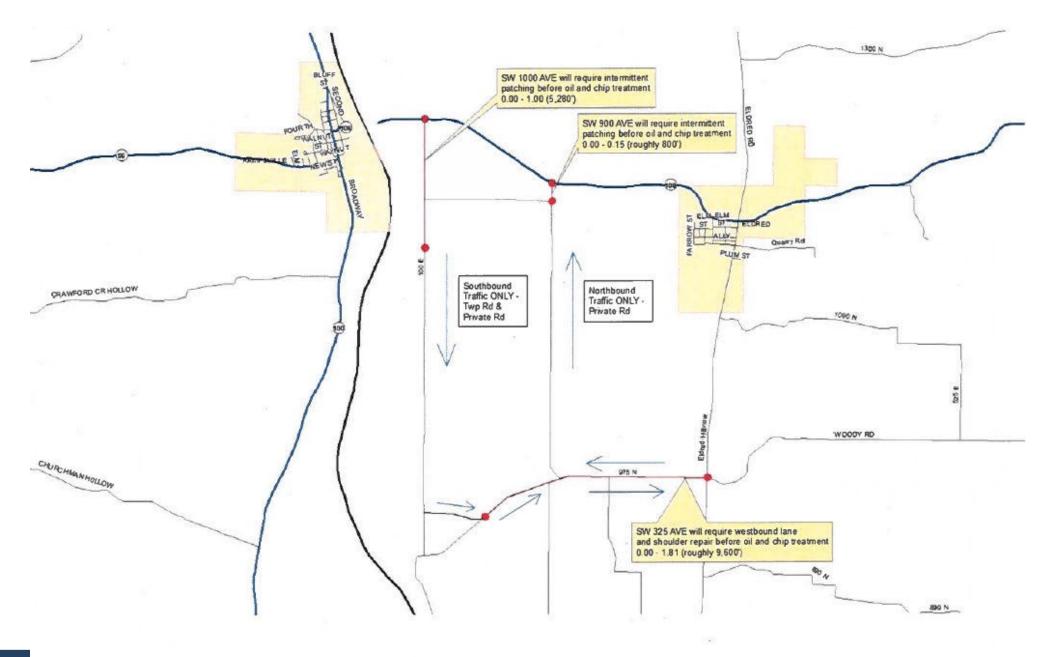
Five (Plus) Options Considered

- Establish Coupler System w/ A2 Treatment
- Establish Coupler System w/ Agg Base and HMA Surface
- Establish Coupler System w/ HMA Patching & Agg Surface
- Establish One Way Flagged traffic on western road
- Dewater IL 108

Subsequent Discussions:

- Full HMA build
- Coordinate with USCoE to reestablish 1993 Landing







An expedited alternatives analysis indicated a detour around the flooded portion of IL-108 was possible.

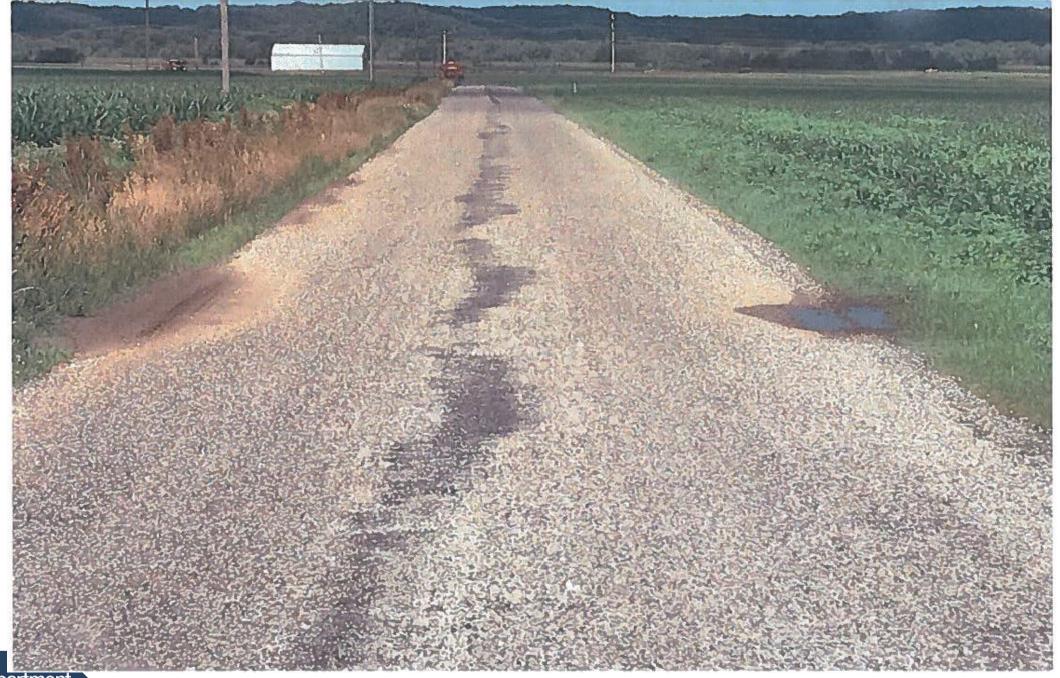






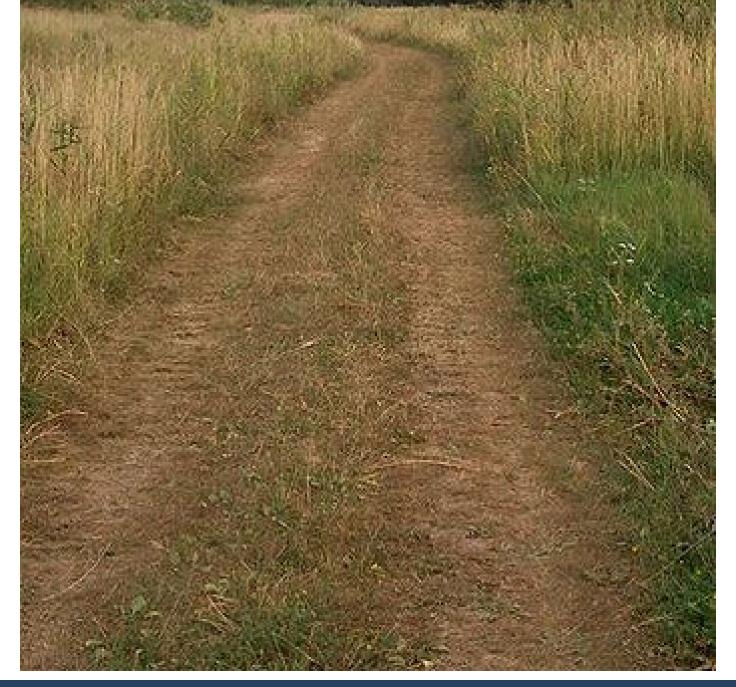
However, many of the existing "roads" were... less than optimal.

U.S	DETAILED DAMAGE INSPECTION REPORT					Report Number S-Greene-1	
of T		(Title 23, Federal-aid Highways)				of	
Location (Name of Road and Milepost)					FHWA Disaster Number		
IL 108 was flooded from approximately mile 2.0 to 2.9. Roads that						IL-19-1	
were reinforced and repaired are Township Rds 975N, 200E, 100E, and a private road (see attached map).						Inspection Date 07/09/2019	
Description of Damage					Federal-aid Route Number		
Flood water forced the closure of IL 108 at approximately 2 miles east of the Kampsville Ferry landing in Greene Co. Local and Private Rds were reinforced to maintain essential travel to and from the ferry. Additionally, these roads were repaired and an A3 treatment done once IL 108 reopened.					FAP 761		
					State County IL Greene		
		Cost Estin	nate	16 15 15 15 15 15 15 15 15 15 15 15 15 15	- 10		
Emergency Repair	Description of Work to Date	Unit	Unit Price	Quantity	Cost		
	(Equipment, Labor, and Materials)	Offic			Completed	Remaining	
	D8	ea	_				
	Labor	ea	\$82,359.7	1	\$82,359.72		
	Equipment	ea	\$110,251.	1	\$110,251.17		
	Material - Stock	ea	\$886.80	1	\$886.10		
	Material - Vendors	ea					
	(Calhoun Quarry Inc)	ea	\$47,658.2	1	\$47,658.26		
	(Mahoney Asphalt LLC)	ea	\$4,492.80	1	\$4,492.80		
	(Louis Marsch Inc)	ea	\$1,251.15	1	\$1,215.15		
		ea					
		ea					
	Contract - Greene Co. Highway	ea	-	480			
	(ES20-05 - A3 Treatment)	ea	\$79,267.1	1	\$79,267.10		
	Method			Subtotal	\$326,130.30		
	☐ Local Forces ✓ State Forces	✓ Contract	t	PE/CE Eme	rgency Repair Total	\$326,130.30	











Concept/Approach had to be settled upon.
Cost estimates generated; Approvals expedited.

Local coordination began immediately.





Materials sourced. Crews scheduled. Equipment pulled in from across the State.

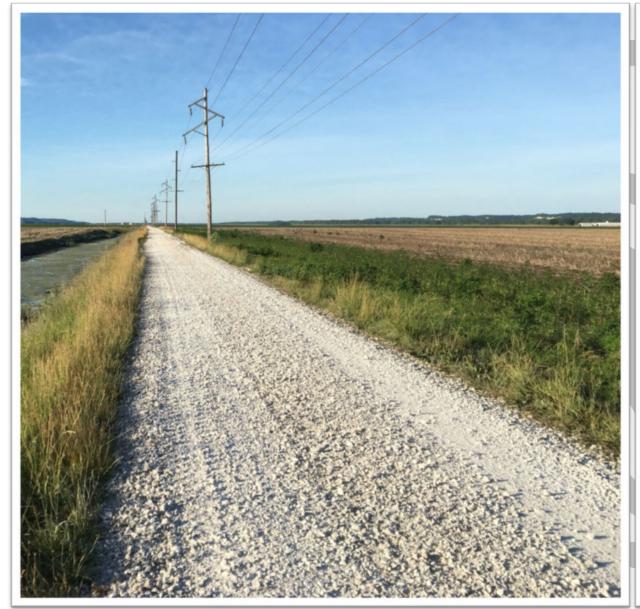










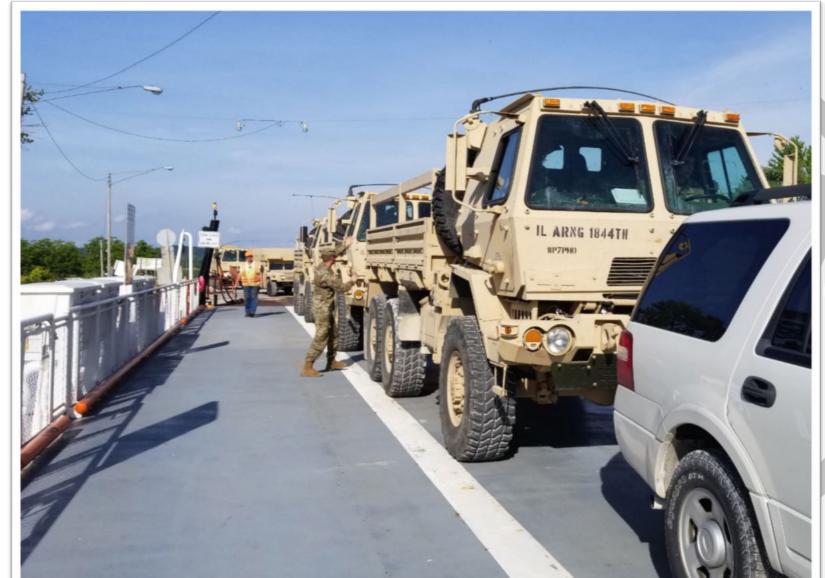




Construction completed in only 4 days!











National Guard among the first across.





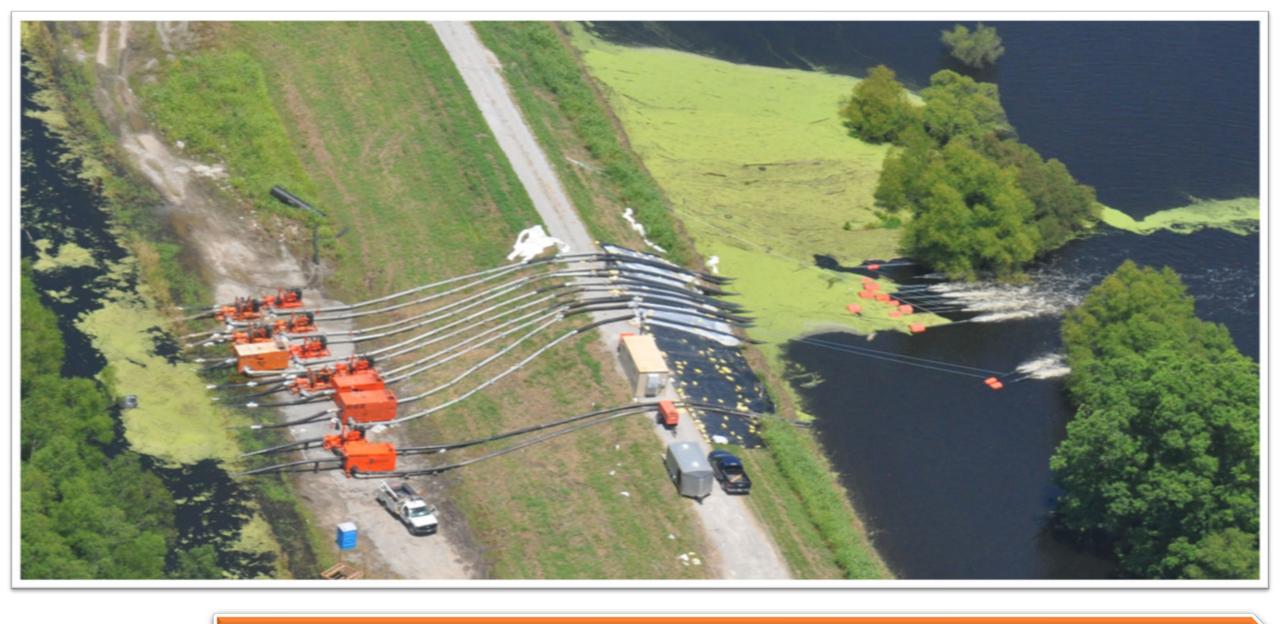






IDOT RESPONSE SUMMARY





40+ Industrial pumps & discharge hoses for dewatering





Traffic control at dozens of locations to ensure safe travel and/or closure when unsafe for public.











Safety/Operational assessment of dams/roads/bridges.

Technical Assistance:
Evacuation Plans;
Debris Management
Plans

Hundreds of truckloads carrying supplies like lumber and potable water.







The Recovery Continues

