

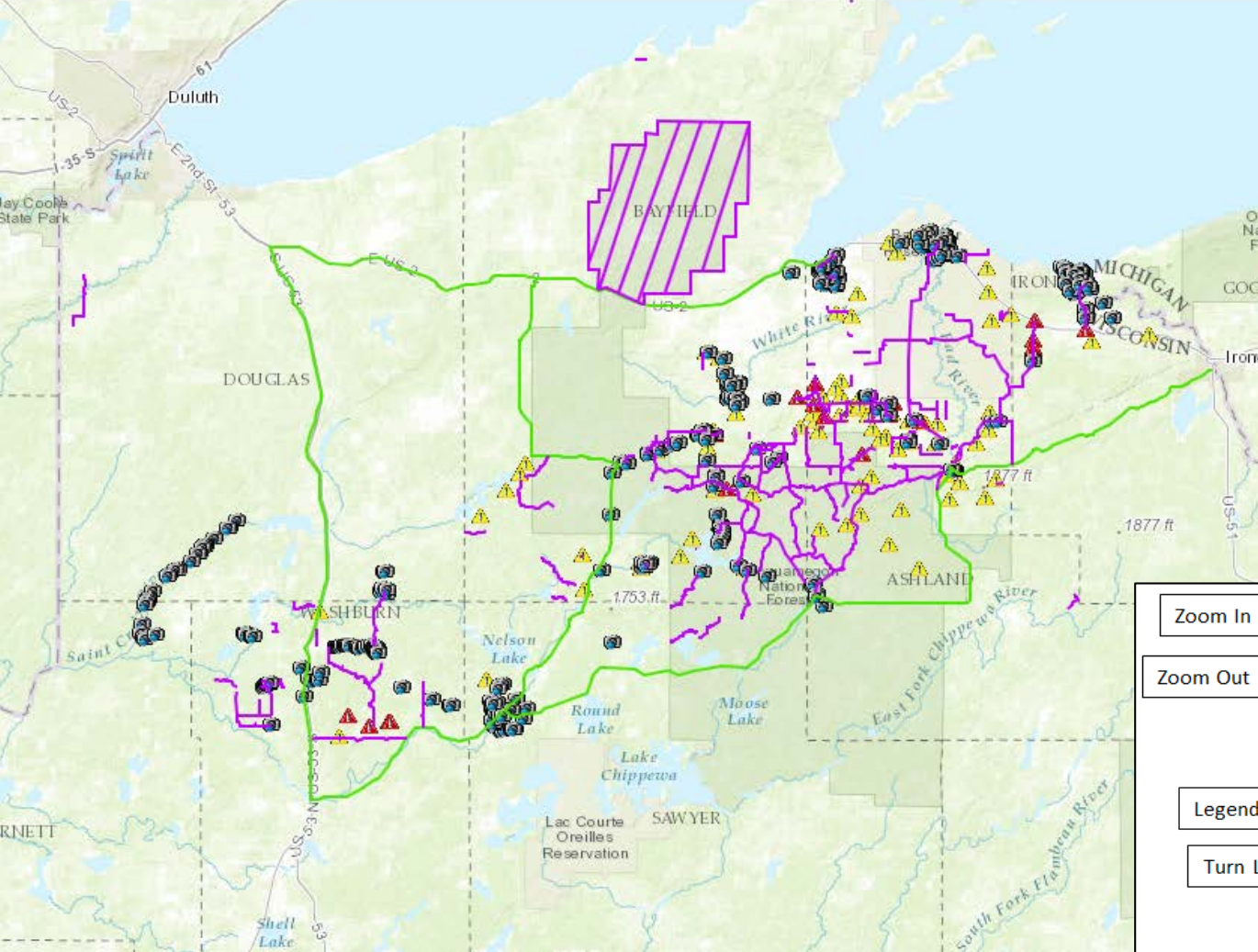
# Best Practices for a Common Operating Picture: Severe Storm Damage in Northwestern WI

September 13, 2016


Colleen Hermans | Wisconsin Emergency Management

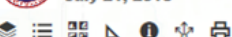
# The Unfolding of our first Common Operating Picture


- Torrential rains and flash flooding start in the middle of the night July 12, 2016.
- Governor Walker Declares State of Emergency on July 12, 2016.
- Presidential Declaration on August 9, 2016 for 9 Wisconsin counties and the tribal nation of Bad River Band of Lake Superior Chippewa.
- Set up AGOL web app accessible to all – starting to get road closure data, first Story Map Tour with ground images.
  - Created road closed lines and points.
  - Additional need for detour lines and caution areas.





- Road\_Closures
- Road\_Detours
- From Bayfield Website - addt photos
- From Bayfield Website - DNR Aerial Pics
- From Bayfield Website - Ashland County Washout Pics


Zoom In +  **Northwestern Wisconsin Flooding** July 21, 2016


Zoom Out - 


Legend Button 


Turn Layers On and Off 

Button to Switch Basemaps 

Measure Tool 

Incident Description 

Map Links to Share 

Create pdf of screen 

# DR-4276 Status

Wisconsin Operations Dashboard

Wisconsin Incident Viewer

Wisconsin Photo Story Maps 1

- Initial Ground Photos 12 July 2016
- Northwestern Wisconsin Flood Images Story Map
- Ashland/Iron County Story Map
- Ashland County July 12 Storm Damage Images Story Map
- Additional Ashland County Flooding Imagery Story Map

Wisconsin Photo Story Maps 2

- Bad River
- Bayfield
- St. Croix
- Hayward/Odanah/Saxon

Wisconsin Photo Story Maps 3

- Hayward, Sawyer County
- Sawyer County July 12 Storm Damage Images
- Iron County July 12 Storm Damage Images
- Washburn County Flood Imagery

1. Hazard Map

**DR-4276 Northwest Wisconsin Flooding**

Wisconsin Operations Dashboard July 12, 2016 Northwest Wisconsin Flooding

Northwest Region Flooding Wisconsin Emergency Management

**Damage Categories**

- DamageCollection(DMA)
  - CAT A - Debris Removal
  - CAT B - Protective Measures
  - CAT C - Roads and Bridges
  - CAT D - Water Control Facilities
  - CAT E - Public Buildings
  - CAT F - Public Utilities
  - CAT G - Parks/Other

**Damage Assessment Points**

Filter

- CAT C - Roads and Bridges Mitigation 5
- CAT C - Roads and Bridges Mitigation 5
- CAT C - Roads and Bridges Mitigation 5

**Cost Estimate of Damage**

**\$24,383,950.97**

A damage cost estimate provided by Wisconsin Emergency Management and FEMA.

## Moving Forward - ONE link!

FEMA DR-4276 Status

Wisconsin Photo Story Maps 2

Bad River  
Bayfield  
St. Croix  
Hayward/Odanah/Saxon

Wisconsin Photo Story Maps 3

Hayward, Sawyer County  
Sawyer County July 12 Storm Damage Images  
Iron County July 12 Storm Damage Images  
Washburn County Flood Imagery

1. Hazard Map

Tab 1. Precipitation and Gauge Data. National overview of precipitation and stream gauge information to indicate flood events and threats.

Tab 2. Watches and Warnings. National overview of Natural Hazards.

Tab 3. National Flood Hazard Layer by FEMA. \*Zoom in for greater details

Tab 4. Civil Air Patrol Imagery. Click a point on the map, then click "More Info" in the /imageURL field to view the image.

2. Declarations

Tab 1. Current FEMA Declarations (Filter by state or declaration number), active JFD/DRC locations, Regional Headquarters, Regions.

Tab 2. National Flood Insurance Policies.

DR-4276 Photo Story Map 3

Hayward, Sawyer County Sawyer County Iron County Washburn County

Iron County July 12 Storm Damage Images Story Map

Flood Briefing on July 18, 2016

Saxon Harbor - Iron County

Saxon Harbor - Iron County

7 Saxon Harbor - Iron County

8 Flood Damage on CTH A - Iron County

9 CTH A Flood Damage - Iron County

10 CTH A Flood Damage - Iron County

11 CTH A Flood Damage - Iron County

12 STH 122 Near Berg Road, Iron County

13 STH 122 Near Berg Road, Iron County

vs. 15 links:  
 1 COP link,  
 13 Story Map Tours  
 1 Damage Assessment Dashboard

# Outcomes Achieved in Implementation

- WEM had a COP for the first time! Used during briefings to help connect field staff with the SEOC.
- Collector App used for Damage Assessments for the first time!
- Efficiently incorporated over 450 images.
- Incorporated data from other State and Local Agencies through web feature services.
  - e.g: DHS hospital, assisted living and nursing home facilities - Road to the nearest hospital was closed. Needed to reroute traffic. Fly out Bad River Band patience for dialysis.
- Simultaneously maintained paper maps for Governor Walker's survey flights.

# Take-Away Message

- Keep it simple - Use just one Map Journal Style with multiple tabs as container for all Apps > one link!
- Need to update SOP to WEM and ICS Standards
  - No more independent GIS judgements. (e.g. flight paths, photo releases)
- Email local GIS staff immediately with heads up and data link. Ask for data if they are creating.
  - Find the right person - county LIO may not be doing the work (e.g. Bayfield County.)
- Continue to connect our different agencies' data. DOT uses Google Earth, State Patrol uses 511