



**NEBRASKA**  
Good Life. Great Resources.

**Department of Environment and Energy**

*Air*      *Water*      *Land*      *Energy*

# Department of Environment and Energy

## Agency Flood Response and Recovery

September 24, 2019

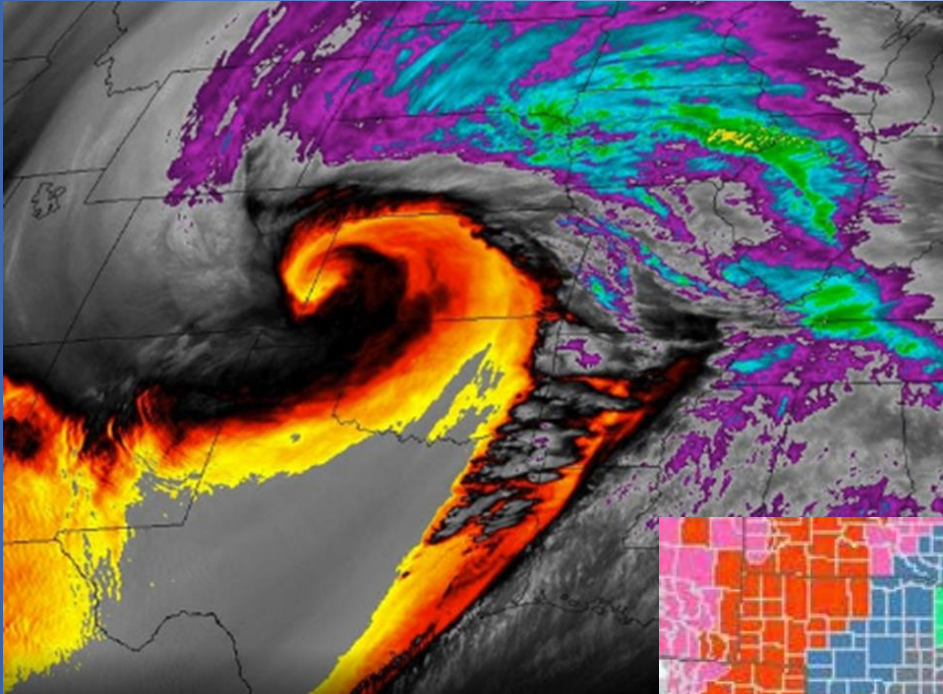
Jim Macy

# Take-aways

- GIS is important
- Get to know ICS system
- Update contacts – at least quarterly
- Visual Management Systems work in emergencies
- Do a post emergency hot-wash and act on deficiencies



# Winter Storm Ulmer Bomb Cyclone (bombogenesis)



3/13/19 Ulmer becomes a Bomb Cyclone (NASA)



3/12/19 Winter Storm Ulmer (NWS)

- National Weather Service Map
  - Red = Blizzard Warning
  - Blue = Winter Storm
  - Grey = Dense Fog
  - Brown = Wind Warning
  - Green = Potential Flooding
  - Yellow = Tornado Watch
- Sharp drop atmospheric pressure (>24 millibars within 24 hours)
  - Dropped 34 millibars to 971 = Category 3 Hurricane
  - Results in extreme winds and heavy precipitation

# Western Nebraska



*~Haskell*



# March 2019 Flood Ag Section





NPPD, 2019  
Spencer Dam, on Niobrara River, before and after flood. Dam and dike overtopped by floodwaters and failed, rafted ice blocks battered the pump house. Most of Dike was completely washed away, only portions of concrete dam remain.









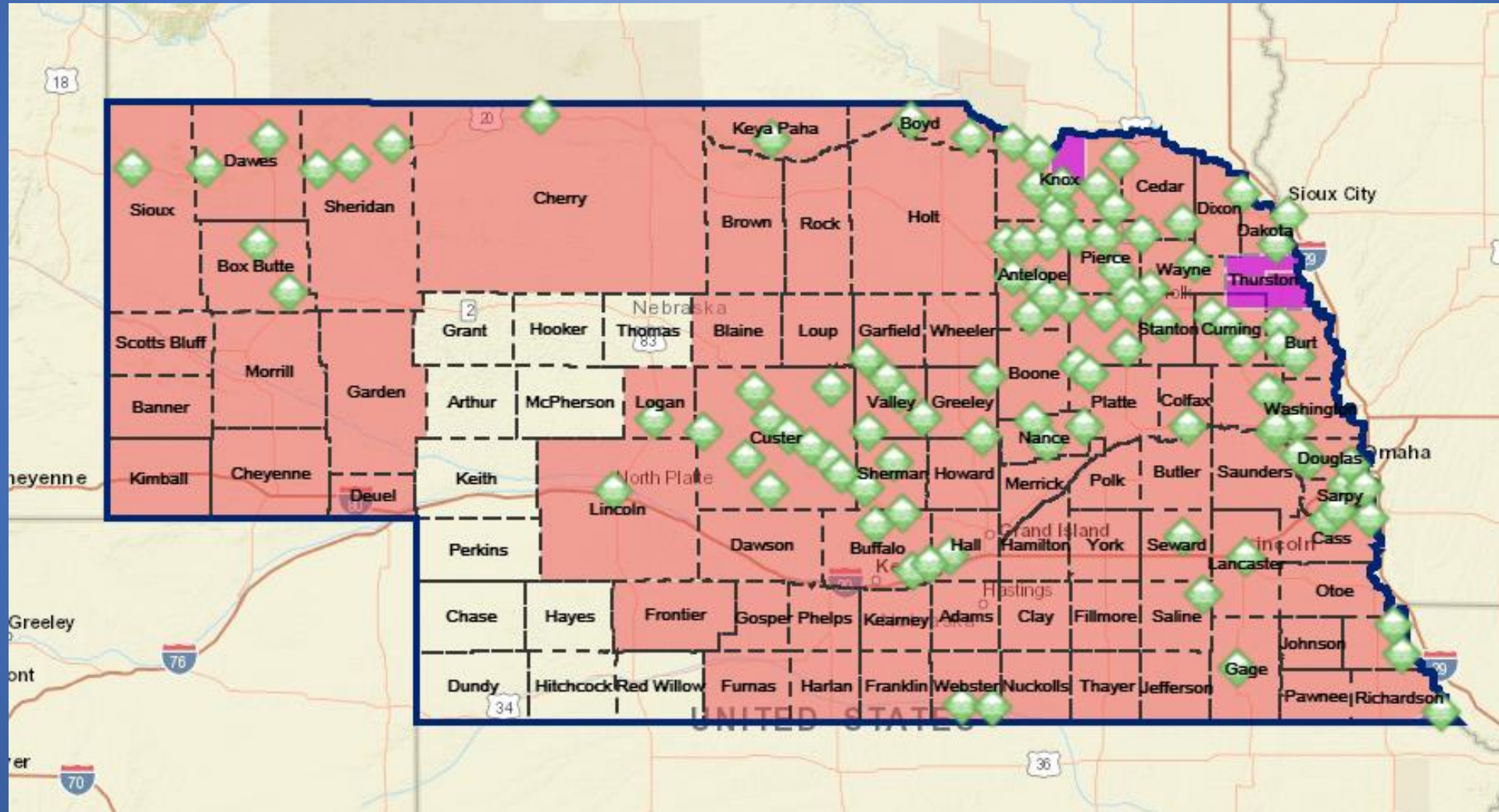
March 20, 2018



March 16, 2019



# Declared Emergency Areas



# Nebraska Strong (The Human Side)



[http://netnebraska.org/interactive-multimedia/news/and-floods-came-nebraska-2019?field\\_media\\_categories\\_tid\\_1=All&title=&tid=&page=8](http://netnebraska.org/interactive-multimedia/news/and-floods-came-nebraska-2019?field_media_categories_tid_1=All&title=&tid=&page=8)

# Human Health, then Environment

- Massive Mobilization of Emergency Response including US Army National Guard across dozens of counties
- NDEE begins to advise on disaster management
- Help the people, then clean the mess

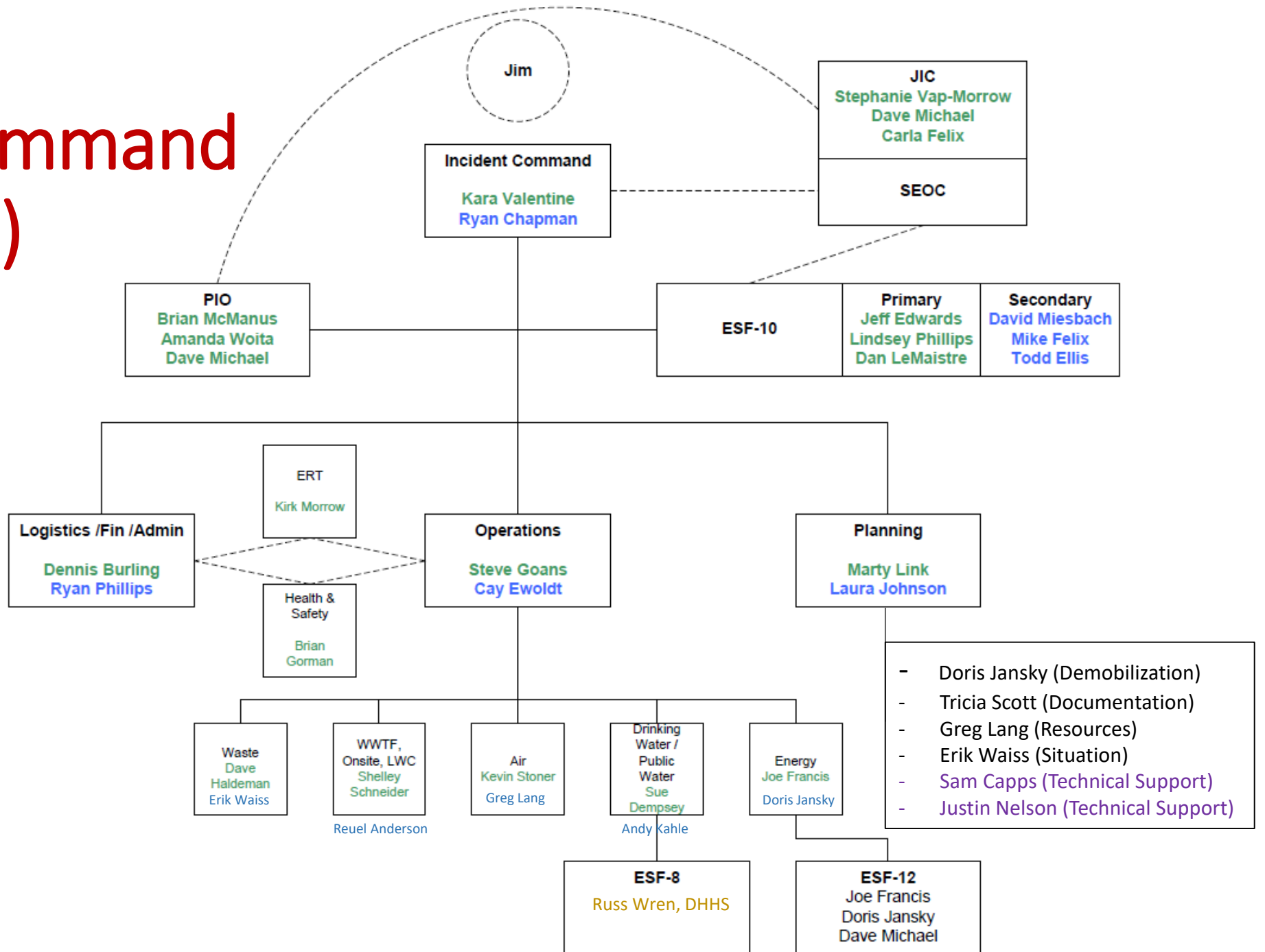


National Review, 2019



New York Times, 2019


# Incident Command System (ICS) Structure



# NEMA begins to use Lifelines concept


**INCIDENT SUMMARY: CATASTROPHIC FLOODING**  
March 14, 2019, 6:45 PM CDT

**CURRENT WARNINGS/WATCHES/ADVISORIES**



**NEBRASKA**  
EMERGENCY MANAGEMENT AGENCY

**COUNTY DECLARATIONS, EVACUATIONS, & SHELTERS**



Blizzard Warning

High Wind Warning

Flood Advisory

Flood Warning

Evacuations

Shelters Open

Disaster Declaration

Declaration Pending

**SUMMARY**  
The Nebraska Emergency Management Agency (NEMA) has opened the State Emergency Operations Center (SEOC) in response to rapidly evolving weather-related hazardous conditions impacting the majority of the state.

**SAFETY & SECURITY**

- Spencer Dam, along the Niobrara River breached, which has impacted, damaged, and destroyed several downstream bridges. One missing person (advised & refused to leave prior to dam failure) reported.
- Nebraska National Guard resources deployed or preparing to deploy for rescue of stranded individuals:
  - 2 trucks & support personnel to Norfolk (Pierce County). Supporting rescue operations w/ Fire Dept.
  - 2 trucks & support personnel to Genoa (Nance County). 31 individuals reported stranded.
  - NENG helicopters & crews to Columbus (Platte County). 29 individuals reported stranded.
- Individual swept away near Norfolk, with a body later recovered.
- Ice dusting preparations have been discontinued, as they are no longer applicable.
- Gavins Point Dam expects to increase discharge rate to 80,000 cubic feet per second for several days.
- Buffalo County Deputy Emergency Manager injured while checking flood conditions.

**FOOD, WATER, SHELTERING**

- Niobrara, Butte, Verdigre are all reporting outages or diminished capacities with municipal water systems.
- Drinking water requested for Columbus, Plattsmouth, & Verdigre requesting water.

**HEALTH & MEDICAL**

- Genoa Hospital temporarily evacuated, but has resumed normal operations.
- DHHS call center in Fremont evacuated due to flooding.

**ENERGY (POWER & FUEL)**

- Cooper Nuclear Station evaluating declaration of Notification of Unusual Event (NOUE), due to expected Missouri River crest. Currently at 100% power. Access road being reinforced.
- OPPD power station south of Nebraska City is sandbagging to mitigate flood issues.
- No terminal or pipeline outages reported.

**COMMUNICATIONS**

- Statewide Radio System (SRS) outages in Lynch, Naper, & Verdigre—Lynch & Naper now online.

**TRANSPORTATION**

- Interstate 80 closed, east & westbound, from Grand Island to Wyoming border, due to blowing snow.
- NDOT 511 website continuously updated with latest closure information.

**HAZARDOUS WASTE**

- Thirty-six wastewater plants bypassing or discharging.
- 51 animal facilities discharging.

NEMA WatchCenter@nebraska.gov • 402-471-7421 • www.nema.ne.gov

# Products of ICS

## MARCH FLOOD 2019 SITUATION REPORT

Thayer County

GENERAL INFORMATION	
Date:	June 4, 2019
Purpose:	Data collection and visual assessment of debris management
Participants:	Colt Farringer, Director, Thayer County Emergency Management 225 North Fourth Street, Room 303, Hebron, NE 68370

### NDEQ Incident Action Plan 2019 Nebraska Flood Response



Operational Period: 4/10/19 1500 – 4/15/19 0900

Prepared By: Laura Johnson

Date Prepared: 4/10/19

Approved By: Kara Valentine

**NEBRASKA** March 2019 flood dashboard - Week of May 26  
DEPT. OF ENVIRONMENTAL QUALITY NDEQ website: deq.ne.gov  
1-877-253-2603

**Legend**

- not affected
- work completed
- moderate issues
- many/significant issues
- unknown
- anticipate future needs

**Updates from May 12 dashboard**

- The following counties received status from NDEQ team members and were upgraded from yellow to green designations in debris management: Brown, Cherry, Fillmore, Keye, Paha, P.O., Rock, Seward and York counties.
- Thayer County was changed from a blue to a green designation in debris management.
- Butler County was visited by NDEQ team members and changed from a yellow designation to blue in debris management.
- The air division received and approved its second burn permit related to the Rock.

**Red designations for drinking water**

There are currently four community Public Water Systems (CWS) and 13 non-community public water systems (NCWS) with primary sources of water still off-line.

**Community Public Water Systems (CWS)**

- Douglas County:** Riverwest Park. The system was flooded. Repairs are currently underway and the system is projected to re-open sometime in May.
- Boyd County:** Boyd County Rural Water Dist. #2. The sole transmission line between the system's wells and the distribution system was washed away.

**Non-Community Public Water Systems (NCWS)**

- Two Rivers State Recreation Area:** All three wells and distribution systems were

COUNTY	Drinking Water	Wastewater	Debris Management	Livestock
Adams				
Antelope				
Arthur				
Bartholomew				
Benning				
Blaine				
Boone				
Box Butte				
Boyd	1			
Brown				
Buffalo				
Burt				
Butler				
Calhoun				
Cedar				
Chase				
Cherry				
Cheyenne				
Clay				
Colfax				
Cuming				
Custer				
Dakota				
Dawson				
Dawson				
Deuel				
Dodge				
Dodge	2			
Douglas				
Dundy				

**NEBRASKA** March 2019 flood dashboard - Week of May 26  
DEPT. OF ENVIRONMENTAL QUALITY NDEQ website: deq.ne.gov  
1-877-253-2603

**Community Public Water Systems Status**

**Non-Community Public Water Systems Status**

**Wastewater Facility Status**

**Waste Debris Management Status**

**Livestock Facility Status**

**Legend**

- Not Affected
- Significant Issues
- Moderate Issues
- Work Completed

**Wastewater Facility Status Legend:**

- Repairs to PWS not complete - Unable to provide consistent source of safe drinking water
- Repairs to PWS not complete - Providing consistent source of safe drinking water
- Repairs to PWS complete - PWS operating normally
- System Permanently Inactivated
- Discharging - No Treatment
- Primary Treatment Required - No Secondary Treatment
- Facility operating normally

**Branches**

**Waste/debris**

**Objectives:**

- Orphan Hazardous Container Identification, collection, disposal in coordination with the Environmental Protection Agency
- Public guidance and outreach for debris management

**Status:**

- Work with the EPA on reporting and recovering containers of hazardous substances
- Container locations reported—163
- Total container locations closed—530
- Total container inventory at staging areas—1,572
- Met with emergency managers in multiple counties

**Wastewater**

**Objectives:**

- Investigate discharges and evaluate structures for damage
- Work with livestock waste control facilities (LWCF) on creating a timeline for resuming normal operations
- Work with wastewater treatment facilities (WWTf) on timeline for restarting normal operations
- Offer/provide financial assistance from the State Revolving Fund (SRF), if needed

**Status:**

- Plattsmouth WWTf is rebuilding electrical systems and expecting a return to providing primary treatment toward the end of the week.
- Nebraska City WWTf is waiting for replacement motors and pumps that should arrive toward the end of this week. Once those arrive the system will begin treating wastewater
- The City of Omaha Papillion Creek Wastewater Resource Recovery Facility (WRRRF) is now partially bypassing because of damage
- Made state revolving loan funds available to affected communities. These loans — with 0% interest and 0% administrative fees — will act as bridge financing until FEMA public assistance is available.

**Drinking/public water**

**Objectives:**

- Provide technical assistance to Public Water Systems (PWS) compromised by flooding
- Coordinate with PWS owners/operators to develop timelines for restoring service

**Status:**

- Currently, four community PWS, and 13 non-community PWS with primary source of water still off-line
- Made state revolving loan funds available to affected communities. These loans — with 0% interest and 0% administrative fees — will act as bridge financing until FEMA public assistance is available.

**Air**

**Objectives:**

- Coordinate with local emergency managers/fire departments for individual burn permits for flood-damage structures
- Work with public information office to put out public service message about burn requirements

**Status:**

- Burn permits requested — 2
- Burn permits issued — 2
- Burn permits denied — 0

**Energy**

**Objectives:**

- Administer NEO weatherization and loan programs
- Provide info on Nebraska Energy Office programs to the Joint Operations Center (JOC), participate in outreach like Multi-Agency Resource Centers (MARC) and more, as resources allow
- Determine the impact of tagging homes on energy office aid programs

**Status:**

- Initiated the Dollar and Energy Savings Loan at 1% interest
- 14 loans committed for \$177,984
- Four loans entered (not yet committed) for \$30,046.33
- 1st Reviewed one loan for \$12,330
- Total: 19 loans for \$229,420.33
- Initiated the Weatherization Assistance Program for emergency repairs/replacement for HVAC systems
- Two applications completed
- Five applications in-progress
- 33 pending applications



Northwest of First Street in Hebron on 05-30-19



Road 5600 north of road P in the county on 05-30-19



EPA 24-Hour Spill/Response 913-281-0991		National Response Center 800-424-8802			NEMA ESS		ESF Coordinators			
Ken Buchholz	816-718-4275	Misc. Federal Contacts			https:nemaihs.com/essential-ehs/		ESF #	ESF Title	Coordinator	Phone
Freon Releases	913-551-7075 ***	FBI	Cell	Office	Example: User Name: DEQ jfrancis		ESF 1	Transportation	Tom Sands Work Cell:	402-479-4339 402-440-1933
Margaret Mnich		Jim Stefanski	402-659-7116	402-530-1252			Password: _____		ESF 2	Communi- cations
Campbell, Todd	913-551-7115	FEMA			ESF 3	Public Works & Engineering			NEMA	
Davis, Joe	913-551-7909	USCG RRT7			Misc. Contacts		ESF 4	Fire Suppression	Jim Heine Work Cell:	402-471-2027 402-720-6899
Davis, Mike	913-551-7328	Mike Sams	281-881-6193	504-671-2234			ESF 5	Emergency Management	Earl Imler	402-471-7181
Doherty, Paul	913-551-7924						ESF 6	Mass Care, Housing & Human Services	NEVOAD Susan Epps	
Ferguson, Doug	913-551-7221	DOE -Radiological Asst					ESF 7	Infrastructure Protection	Bo Botelho Work Cell:	402-471-0972 402-270-4712
Fisher, Susan	913-551-7919	DOT					ESF 8	Public Health & Medical Services	Russ Wren Work Cell:	402-471-0972 402-270-4712
Frey, John	913-551-7994	DHS					ESF 9	Urban Search & Rescue	NEMA MAIN	402-471-7421
Heitman, Jason	913-551-7104	Greg Hollinsead	402-981-8970				ESF 10	Environmental Quality	Jeff Edwards Cell:	402-471-8309 402-405-2117
Johnson, James	913-551-7058	Ken Sessa		813-283-7960			ESF 11	Agriculture		
Kroone, Janice	913-551-7005	U.S. Nuclear Regualtory Commission Washington D.C.					ESF 12	Energy	Doris Jansky	402-471-3538
Larson, Kevin	913-551-7808		301-415-7000	800-368-5642			ESF 13	Public Safety & Security	Jim DeFreece Work Cell:	402-470-4973 402-670-4038
Lininger, Don	913-551-7724	Poison Control Center 800-222-1222					ESF 14	Long Term Recovery &		
Miley, Kate	913-551-7916	USF&WS					ESF 15	Military Support	LTC Craig Strong	402-309-8323
Nold, Eric	913-551-7488	Amanda Civrej		308-379-6592	State Haz Sub Response Contractors		Other Interested Agencies that MAY be contacted:			
Ruiz, Adam	913-551-7926				Environmental Restoration	402-201-2924				
Schademann, Randy	913-551-7331				Sunbelt Environmental	417-831-5052	Dir. Department of Insurance	Bruce Ramage Cell:	402-471-4607 402-871-9608	
Schmaedick, Manny	913-551-7449				Environmental Works	877-827-9500	Dept. of Natural Resources	Katie Ringland Work Cell:	402-471-2094 402-440-1565	
Schuette, Meagan	913-551-7630	Capitol Police 402-471-2400			State Haz Waste Disposal Contractors		Game & Parks	Craig Stover	402-471-5532	
Williams, Dave	913-551-7625				Pollution Control Industries		Department of Homeland Security	John Brogan Work Cell:	816-283-7083 816-518-3833	
Peterson, Mary	913-551-7882	EPA CID				Clean Harbors	Nebraska Forest Service	Scott Josiah	402-472-1467	
		Justin Oesterriech	913-551-7839		Heritage Environmental		Civil Air Patrol	Emergency	888-211-1812 x300	
		Cete Holston	913-551-7356		PSC Env Service					
					Veolia ES Tech Service					
		EPA Region 7 - (913) 551-7003			US Forest Service 866-800-8595					
		Regional Adminstrator	Jim Gulliford	x7006	Missouri DNR- (573) 751-3443					
	816 6020132	Regional Counsel	Leslie Humphrey	x7227	Iowa DNR - (515) 725-0463					
		Policy and Management	Mike Brincks	x7799	KDHE- (785) 296-1500					
		Air and Waste	Rebecca Weber	x7487						
		Services & Technology	Cecilia Tapia	x7733						
		Office of Public Affairs	Curtis Corey	x7506						
		Enforcement	DeAndre Singletary	x7373						
		Superfund	Mary Peterson	x7882						
		Water	Jeffrey Robichaud	x7146						

# QR Code Sheet



*This guidance document is advisory in nature but is binding on an agency until amended by such agency. A guidance document does not include internal procedural documents that only affect the internal operations of the agency and does not impose additional requirements or penalties on regulated parties or include confidential information or rules and regulations made in accordance with the Administrative Procedure Act. If you believe that this guidance document imposes additional requirements or penalties on regulated parties, you may request a review of the document.*

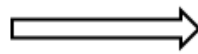
19-123

Revised - April, 2019

## Natural Disaster - Flood Guidance QR Sheet

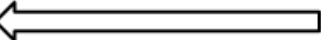
This guidance has been created to offer quick in-the-field reference to critical documents listed on the NDEQ webpage: <http://deq.ne.gov/NDEQProg.nsf/OnWeb/Disaster>. Use your phone's camera or barcode scanner to pull up the referenced documents. (May require download of a QR-scan app)

Natural Disaster Debris Management  
Including domestic and hazardous wastes



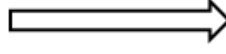
Natural Disaster Clean-Up Directory  
Short 1-page version of first document

Flood Damaged Structure Demolition and Disposal  
Asbestos, Burning, Burial, Landfilling



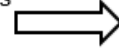
Flood Sediment Cleanup  
Sediment on Field, Etc.

Flood Damaged Grain and Hay  
Also corn stalks, vegetative debris

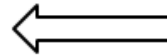


Floodwater Sandbag Re-use and Disposal

Guidance for Clean-up Following Tornadoes  
and Severe Storms

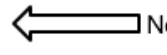
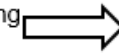


More debris Management recommendations



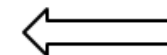
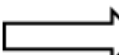
Q & A Regarding Wastewater Bypasses  
During a Flood

Information for Those Considering Bypassing  
Wastewater Treatment Plants



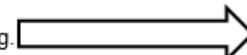
Notification of Discharge of Livestock Waste

Pollution Prevention Tips for Homeowners  
Preparing to Evacuate from Flood



Disposal of Animal Carcasses  
On site burial/composting, landfilling, rendering

Additional guidance available  
Including "Orphaned" Tank reporting.



### RESOURCES:

- NDEQ Waste Management Section (402) 471-4210
- NDEQ Waste Water Section (402) 471-8830
- NDEQ Toll Free Number (877) 253-2803
- NDEQ Hazardous Waste Compliance Assistant (402) 471-8308
- Email questions to: [NDEQ.moreinfo@nebraska.gov](mailto:NDEQ.moreinfo@nebraska.gov)

Produced by: Nebraska Department of Environmental Quality, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402) 471-2186. To view this, and other information related to our agency, visit our web site at <http://deq.ne.gov>.



NDEE, 2019



# Orphan Tank Program

- NEMA/FEMA/EPA program to locate and remove orphan fuel tanks
- Propane, Fuel, and other tanks floated away during the flood
- Many found in difficult to reach locations
- Property owners could contact the NDEE Flood Hotline to report tanks, that information was forwarded to responders
- Tank program ran through the month of May



Photo courtesy Dean McFetrich, Ray-Carroll Fuels



## Erosion and Deposition



# One System, Multiple Communities

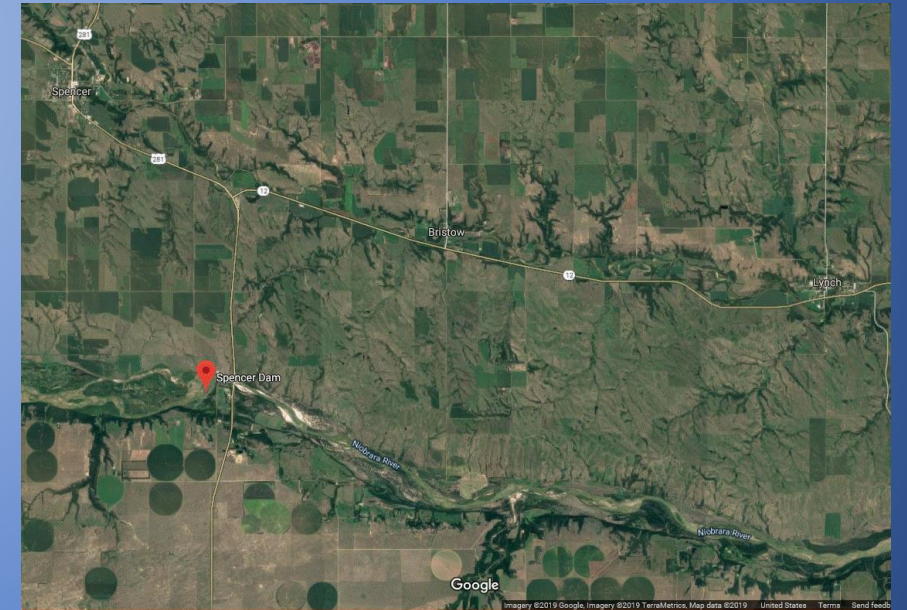
Boyd County Rural Water District 2

450 rural customers

455 customers Village of Spencer - consecutive system

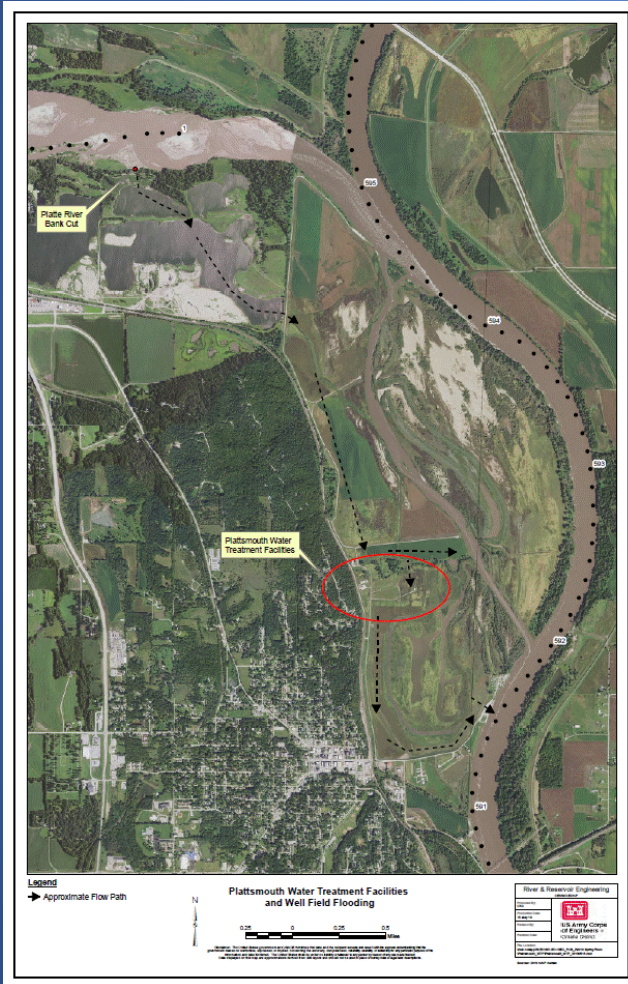
240 customers Village of Lynch - consecutive system

Transmission line between wells and distribution system gone



# Making its Own Way

Platte breach flowed into Plattsmouth  
Including wells & WTP



# Still an Island

Plattsmouth water treatment plant serves over 6500 people





# Omaha Papillion Creek



# EPA Mobile Lab for domestic well testing



# What were the results?

Location	Date of event	Samples Received	Positive Coliform	Positive E.coli	Negatives	Percent Positive Coliform/E.coli
Fremont	3-21-19	80	24	11	56	30/14
Norfolk	3-22-19	148	42	15	106	28/10
Verdigre	3-23-19	52	23	9	29	44/17
Columbus	3-28-19	167	36	10	131	22/6
West Point	3-29-19	120	35	11	85	29/9
Fremont	4-1-19	127	32	10	95	25/8
Ashland	4-2-19	76	11	2	65	15/3
Niobrara	4-9-19					
Fullerton	4-10-19					
Totals		770	203	68	567	

# SRF – Funding Response

- State Revolving Fund – Financial Assistance for public water (DWSRF) and wastewater Projects (CWSRF)
- EPA/FEMA Memorandum of Understanding
  - Streamlines coordination between FEMA and the SRFs to enable funding to support essential infrastructure projects to be made available as quickly as possible
- Nebraska's SRF
  - 0% Financing, Maximum year terms
  - Balloon repayment structuring (max. \$2,000)
  - Towns use the SRFs as a cash flow means while getting their infrastructure back

# Dollar and Energy Savings Loan Program

## Flood Recovery Efforts

**1% Loans associated with March flooding (April 16 to July 1, 2019)**

- **54 loans committed for \$862,060.21**

**1% Loans associated with July flooding (Central Platte and Republican River Watersheds) (July 17, 2019 to September 27, 2019)**

- **6 loans committed for \$56,796.05**

**Loans covered improvements that could assist in:**

**Appliance Replacement, Doors & Windows, Heating, cooling and water heater equipment, Insulation**

# The Flood Begins

This is a photo of the State Emergency Operations Center looking at the South Wall





Nasa, 2019

March, 2018



NEMA, 2019



# Eastern Nebraska



Get trained now to help in the future

<https://training.fema.gov/nims/>



FEMA Emergency Management Institute

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EMI Students & Instructors  
Information for Students and Instructors

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Learn how to apply to our programs

Programs & Activities  
Resident, Trainer Program, RLO, IEMC, DFTO, etc.

Independent Study  
Online courses available free of charge

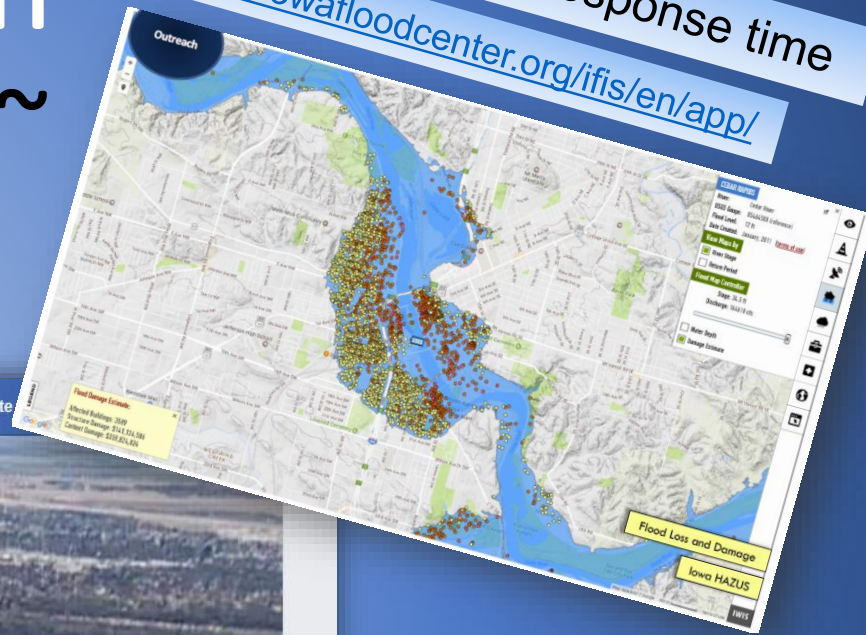
Contact Us  
Contact IS, NIMS, Admissions

National Incident Management System (NIMS)

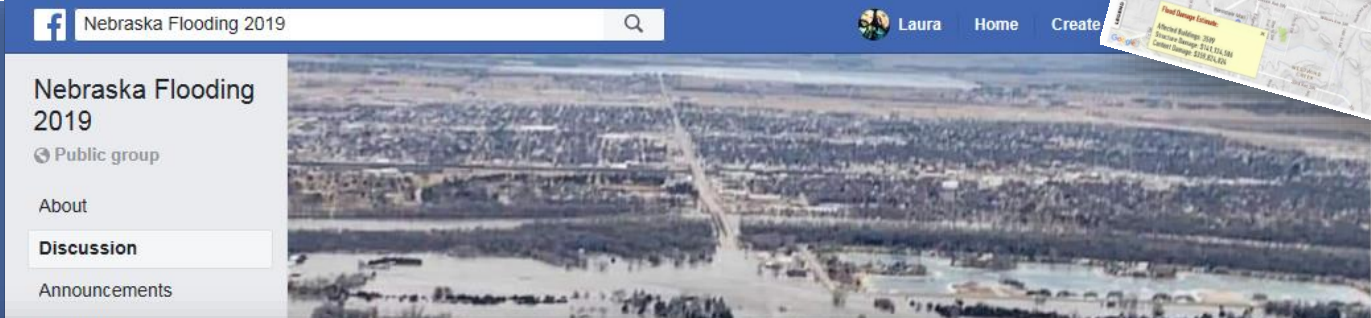
# Panel Discussion ~ Lessons Learned ~

Invest in tools to reduce response time

<http://ifis.iowafloodcenter.org/ifis/en/app/>



Utilize Social Media



Nebraska Flooding 2019

Public group

About

Discussion

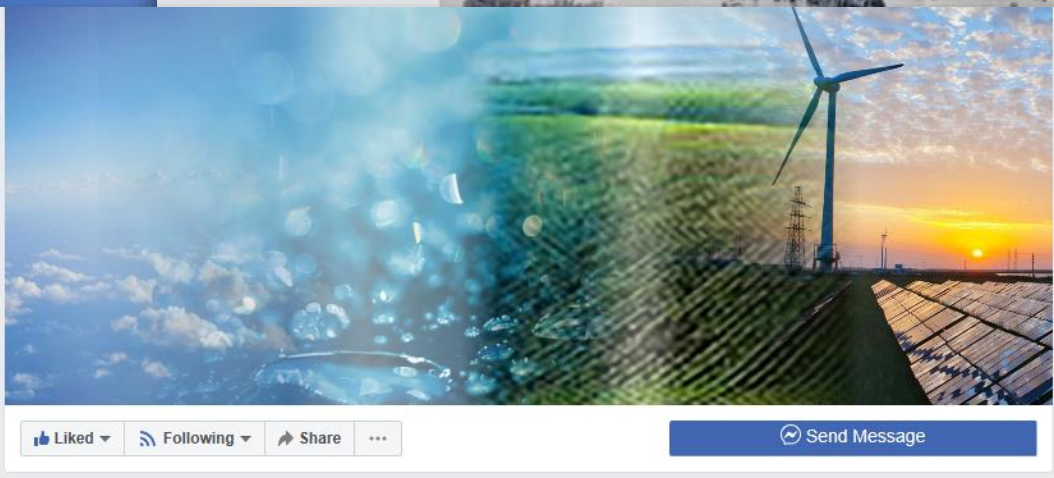
Announcements



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Home

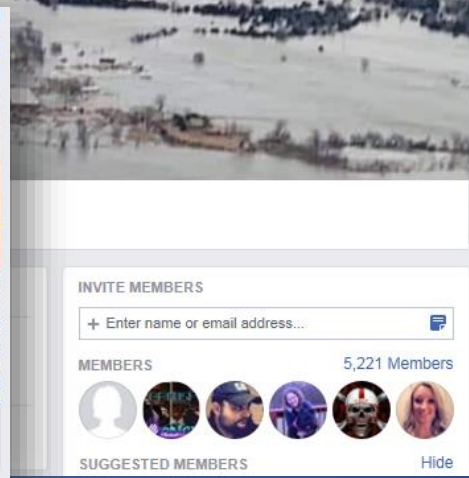


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INVITE MEMBERS

MEMBERS 5,221 Members

SUGGESTED MEMBERS