


Dakota County
All-Hazard Mitigation Plan Update:
Draft Plan Review

Dakota County Planning Commission
January 27, 2022

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Presentation Overview 



1. Recap on Plan Purpose
2. Public Engagement Findings
3. New Plan Content
4. Request for Commission Recommendation

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Plan Purpose *Dakota*
COUNTY



Mitigation:
Actions intended to eliminate or reduce long term risks to human life and property from natural and technological hazards

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Plan Purpose *Dakota*
COUNTY



Plan Requirements:

- Disasters incur loss of life, damage, economic disruption.
- Disaster Management Act of 2000: FEMA began a national disaster mitigation program to reduce vulnerability and to save funds
- Approved Plans are required for federal disaster relief and hazard mitigation funding

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Plan Purpose *Dakota*
COUNTY



Hazards Addressed:

- Violent storms, extreme temperatures
- Tornado
- Structural Fire
- Floods
- Drought
- Hazardous materials release
- Infectious disease outbreak
- Terrorism
- Water supply contamination
- Dam and structural collapse
- Landslide
- Cyber-Attack
- Wildfire
- Civil Disturbance (added in 2021)


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Plan Purpose *Dakota*
COUNTY

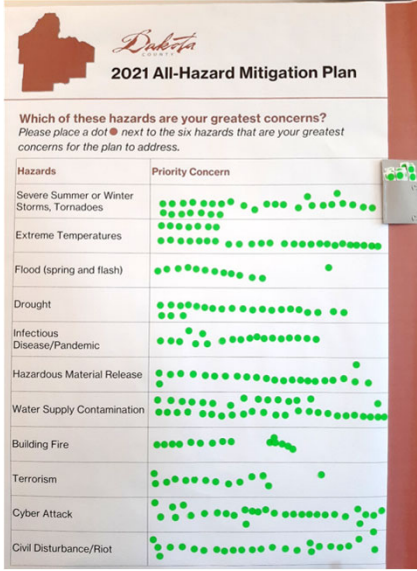
Questions or comments on
the Plan purpose?

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Public Engagement



- County Webpage Update
- Update Publicized with Cities
 - City Managers
 - Emergency Personnel
 - City Communications
- 2021 Online Survey
 - Promoted to Community Liaisons
 - COVID Vax Clinic flyers
 - Social Media
- Library Intercepts
- County Fair Booth




2021 All-Hazard Mitigation Plan

Which of these hazards are your greatest concerns?
Please place a dot next to the six hazards that are your greatest concerns for the plan to address.

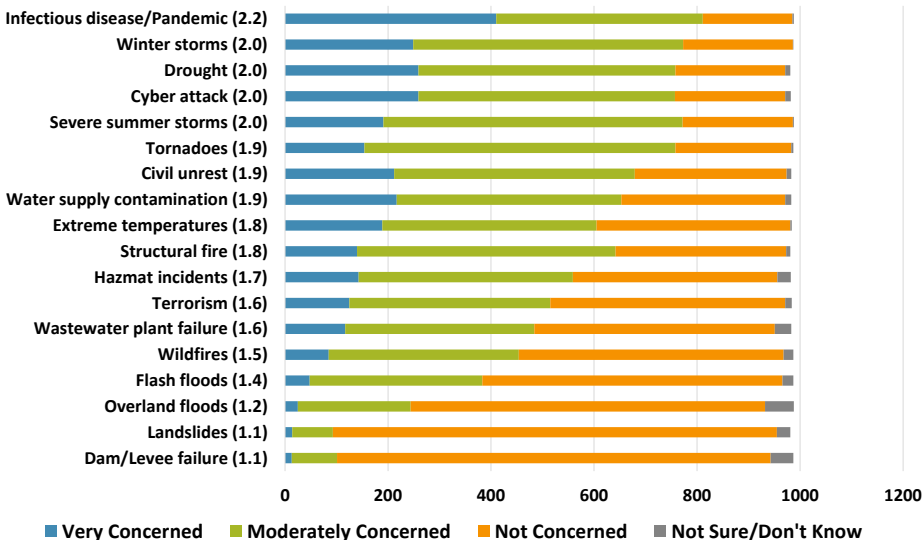
Hazards	Priority Concern
Severe Summer or Winter Storms, Tornadoes	High priority concern (many dots)
Extreme Temperatures	High priority concern (many dots)
Flood (spring and flash)	Medium priority concern
Drought	Medium priority concern
Infectious Disease/Pandemic	Medium priority concern
Hazardous Material Release	Medium priority concern
Water Supply Contamination	Medium priority concern
Building Fire	Low priority concern
Terrorism	Low priority concern
Cyber Attack	Low priority concern
Civil Disturbance/Riot	Low priority concern

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Public Engagement




Online Survey Results, 2021




Hazard	Average Concern Score
Infectious disease/Pandemic	2.2
Winter storms	2.0
Drought	2.0
Cyber attack	2.0
Severe summer storms	2.0
Tornadoes	1.9
Civil unrest	1.9
Water supply contamination	1.9
Extreme temperatures	1.8
Structural fire	1.8
Hazmat incidents	1.7
Terrorism	1.6
Wastewater plant failure	1.6
Wildfires	1.5
Flash floods	1.4
Overland floods	1.2
Landslides	1.1
Dam/Levee failure	1.1


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Public Engagement								
Library Intercept Summary: Identify Your Top Five Concerns								
Hazard	Burn-haven	Farming-ton	Galaxie	Hastings	Went-worth	Wescott	Total	
Water Contamination	92	47	63	44	58	26	330	
Severe Storms, Tornadoes	75	33	64	31	41	25	269	
Extreme Temperatures	47	21	62	28	45	17	220	
Cyber Attack	68	23	49	20	38	19	217	
Pandemic/Infectious Disease	51	23	43	23	32	16	188	
Civil Disturbance	65	19	37	23	35	6	185	
Hazmat Release	42	14	33	19	36	13	157	
Drought	44	24	39	20		14	141	
Terrorism	25	22	26	7	7	5	92	
Flood (spring or flash)	14	22	22	6	9	9	82	
Building Fire	11	4	22	5	4	4	50	
Maximum	92	47	64	44	58	26	331	

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Public Engagement		
New Survey Questions on Individual Preparedness in 2021		
1. Do you have a safe place to be on your property/residence during a natural disaster, such as severe storms or a tornado?	Yes: 95% No: 2% Not Sure: 3%	
2. If evacuation was necessary, I or someone else in my family would need physical assistance to leave my home.	Yes: 5% No: 92% Not Sure: 3%	
3. I cannot afford to buy detectors, fire extinguishers, radios, first aid kits...	Yes: 6% No: 94%	

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Public Engagement 	
County Fair Intercept, August 2021 (~30 participants)	
Preparedness Measure	My household has done this
Smoke detectors, each floor, new batteries annually	29
First Aid Kit, in home and car	22
Fire Extinguisher	22
First Aid / CPR Training	22
Hazard Insurance	11
Essential Supply Kit (food, water, medications)	11
Signed up for reverse 911	10
NOAA Weather Radio	10
Household Emergency Plan	10
Attended preparedness meetings or events	7
"Go Kit" for evacuation	5

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Public Engagement 

Comments and questions on the public engagement summary?

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New Plan Content

FEMA National Risk Index (NRI): model based on annualized losses, social vulnerability, and community resilience

Measure	Dakota County Score	Comparison to US
Risk Index	10.5	Relatively Low
Expected Annual Loss	26.79	Relatively Moderate
Social Vulnerability	19.75	Very Low
Community Resilience	58.21	Very High

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New Plan Content

FEMA National Risk Index (NRI):

Dakota County Social Vulnerability - Rating

- Very Low
- Relatively Low
- Relatively Moderate
- Relatively High

Dakota County Expected Annual Loss Rating, Natural Hazard

- Very Low
- Relatively Low
- Relatively Moderate
- Relatively High

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New Plan Content



FEMA NRI Natural Hazard Score/Ratings for Dakota County

Hazard	Index Rating	Score
Strong Wind	24.69	Relatively High
Cold Wave	18.34	Relatively Moderate
Tornado	17.65	Relatively Moderate
Hail	16.52	Relatively Moderate
Lightning	10.84	Relatively Low
Winter Weather	10.54	Relatively Low
Ice Storm	10.08	Relatively Low
Landslide	8.02	Relatively Low
Riverine Flooding	6.74	Relatively Low
Drought	3.28	Very Low
Wildfire	3.07	Very Low
Earthquake	0.85	Very Low

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New Plan Content



FEMA NRI Expected Annual Losses for Dakota County

Hazard	Annual Loss Rating	Annual Loss Score	Total Annual Loss	Sector of Greatest Impact, Percent
Strong Wind	Very High	93.51	\$14,665,676	Buildings, 79%
Tornado	Relatively High	38.76	\$8,163,706	Buildings, 63%
Hail	Relatively High	39.47	\$4,121,745	Buildings, 86%
Heat Wave	Relatively High	29.52	\$1,805,750	Population, 99%
Riverine Flooding	Relatively Moderate	14.81	\$1,626,654	Buildings, 73%
Cold Wave	Relatively High	42.05	\$483,696	Population, 72%
Lightning	Relatively High	35.62	\$382,824	Population, 67%
Ice Storm	Relatively Moderate	28.66	\$258,471	Population, 86%
Winter Weather	Relatively Moderate	28.82	\$154,156	Buildings, 95%
Landslide	Relatively Moderate	22.44	\$98,166	Buildings, 58%
Drought	Relatively Low	6.88	\$79,932	Agriculture, 100%
Wildfire	Relatively Low	6.74	\$48,543	Buildings, 87%
Earthquake	Very Low	2.17	\$19,556	Buildings, 94%

Assessed Value of All Buildings in County: \$63,002,022,008

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New Plan Content *Dakota*
COUNTY

Does the Commission have comments on the FEMA NRI Modeling?

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New Plan Content *Dakota*
COUNTY

Civil Disturbance:

- Precipitated by actions of those who believe that their needs or rights are not being met.
- Disruption requires intervention to maintain public safety, prevent injuries and deaths, and avoid major property damage.
- May involve multiple precipitating situations and groups with different intentions and agendas.



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New Plan Content

Civil Disturbance Vulnerability Assessment

Frequency of Occurrence:	Likely-Highly Likely*
Warning Time:	3 to 6 hours
Geographic Extent:	County-wide or greater
Likely Adverse Impact:	Critical

***Frequency of Occurrence:** Probability - How often hazard can be expected to occur.
 1 = Unlikely: <1 percent probability of occurrence in the next 100 years.
 2 = Occasionally: 1-10 percent probability per year, at least once in next 100 years.
 3 = Likely: 10-100 percent probability per year, at least once in next 10 years.
 4 = Highly Likely: 100 percent probable in a year.

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New Plan Content

Civil Disturbance Goals:

1. Improve situational awareness and monitoring efforts.
2. Build community partnerships to promote timely response.
3. Increase training to reduce injuries and damages from civil disturbance.
4. Reinforce security and resilience of County facilities and infrastructure likely to be targeted during civil disturbance.
5. Restore and maintain public confidence in County governance in the aftermath of civil disturbance.

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New Plan Content



Cyber-Attack Threats: overall increase, ransomware attacks

Enhanced Strategies:

1. Conduct regular exercises
2. Conduct regular assessments and develop new programs/projects
3. Increase staff training
4. Invest in hardware and infrastructure improvements
5. Review best practices
6. Communicate with cities and local forums on cyber security.

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New Plan Content



Pandemic: COVID-19, multiple variants and surges

Enhanced Strategies:

1. Maintain adequate levels of PPE.
2. Conduct after-action reviews to identify needs/update plans.
3. Develop/maintain a communication strategy for hard-to-reach/limited English proficiency populations and ADA accessible communications.
4. Ensure that Continuity of Operations Plans address long-term pandemic needs with adequate technological systems, staff ability to work remotely, supplies and vehicles, and new service delivery methods.

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New Plan Content



Water Supply Contamination: naturally-occurring elements, manmade substances, broadened County plans to address.

Enhanced Strategies:

1. Strategically restore drained wetlands to enhance filtration and recharge of groundwater
2. Partner to improve groundwater recharge through water quality practices such as low impact development, wetland restoration and permanent vegetation
3. Use Conservation Focus Areas to prioritize, protect, and restore wetlands, shoreland, headwaters and significant groundwater recharge areas for water quality and supply

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New Plan Content



Water Supply Contamination Enhanced Strategies:

1. Facilitate installation of appropriate, effective drinking water treatment systems for low-income private well households with contaminated groundwater.
2. Conduct feasibility study for establishment of a rural water supply.
3. Advocate for state and federal funding for local water infrastructure improvement projects and encourage municipal projects that improve drinking water quality.

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New Plan Content 

Does the Commission have questions or comments on potential new hazards, goals, and strategies?

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Staff Request: 

The Planning Commission recommends that the 2022 All-Hazard Mitigation Plan update be released for a 45-day public review period

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Next Steps



- Preliminary review by MN HSEM and FEMA
- Request public review period at February GGP
- 45-day public review, online engagement
- Formal submittal to HSEM and FEMA for approval
- County adoption of plan
- City adoptions

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Thank you!

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