



Resiliency Working Group

July 24th, 2023





Resiliency Working Group

Agenda

Resilience Improvement Plan

- Hazard overview
- Hazard prioritization activity
- Chapter 3 discussion

RIDB

- Overview of effort
- Populating the database

Project Solicitation

- Work types discussion
- Discussion of US 61 and I-380

Overview of PROTECT Discretionary

Resilience Improvement Plan

- Hazard overview
- Hazard prioritization activity
- Chapter 3 discussion items



Resilience Improvement Plan: Chapter 3

- Review of proposed content
 - Natural hazards summary
 - Flooding and other natural hazards
 - Other hazards summary
 - Cybersecurity, adverse actor, etc.
 - Hazard assessment
 - Results of stakeholder input and risk matrix prioritization
 - Priority hazard analysis
 - Implications to Iowa's transportation system
 - How modes are impacted by disruptions
 - Consideration of transportation assets
 - Consideration of community assets

Resilience Improvement Plan: Hazard Overview

- Why consider hazards?
 - Guidance states
 - “If developed, Resilience Improvement Plans shall be consistent with **State and local hazard mitigation plans**, including as required by the Federal Emergency Management Agency (FEMA).”
 - “Demonstrate a systemic approach to transportation system resilience and be consistent with and complementary of the **State and local mitigation plans** required under section 322 of the Stafford Act.”
 - “Eligible resilience improvement activities must improve the ability of an existing surface transportation asset to withstand one or more elements of a weather event or natural disaster, or to increase the resilience of surface transportation infrastructure from the impacts of changing conditions, such as **sea level rise, flooding, wildfires, extreme weather events, and other natural disasters.**”

Resilience Improvement Plan: Hazard Overview

- What hazards to consider?



Drought



Tornado/
Windstorm



Flooding



Winter
Storms



Hail &
Thunderstorms



Excessive
Heat



Dam / Levee
Failure



Landslide



Freeze/Thaw

Resilience Improvement Plan: Hazard Prioritization

- Prioritization of hazards

Risk Assessment Matrix				
Likelihood/ Severity	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	HIGH	HIGH	HIGH	MEDIUM
Probable (B)	HIGH	HIGH	MEDIUM	MEDIUM
Occasional (C)	HIGH	MEDIUM	MEDIUM	LOW
Remote (D)	MEDIUM	MEDIUM	LOW	LOW
Improbable (E)	LOW	LOW	LOW	LOW

Resilience Improvement Plan: Hazard Prioritization

- Prioritization of hazards

Figure 5.2: Risk priority matrix, showing the survey results for 30 identified risks

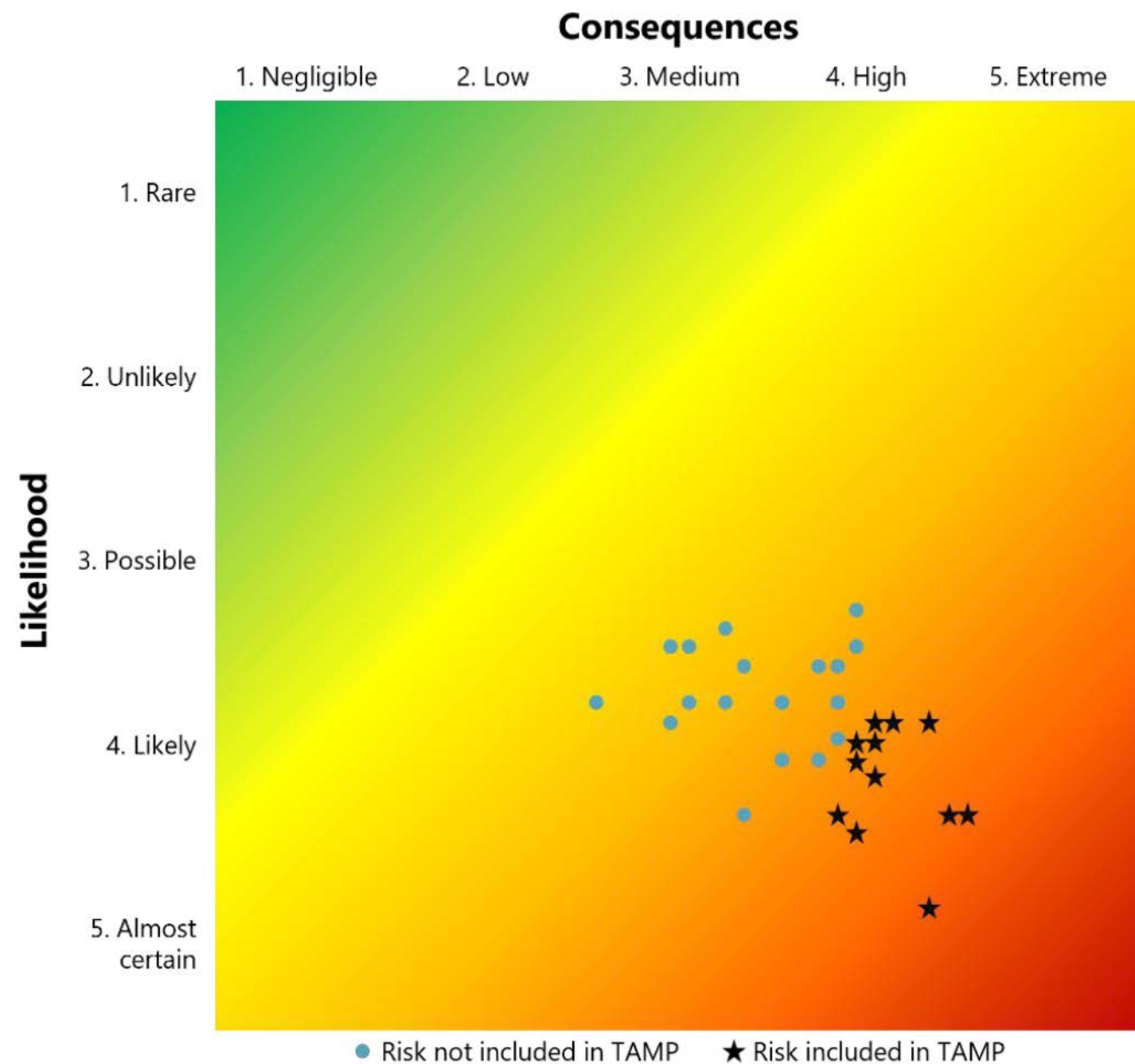


Table 5.1 (Part 1 of 4): Priority risks and mitigation actions

Risk Statement	Response Strategies	Owner(s)	Status/Actions
1. If costs continue to increase in an unpredictable manner (due to factors such as inflation, fuel, supply chain disruptions, and limited contracting workforce), the resulting increased project costs could impact the delivery of the program. <i>Likelihood: 4.4</i> <i>Consequence: 3.9</i> <i>Response Approach: Mitigate</i> <i>Categories: Business Processes; Capital Planning and Programming</i>	1A. Readjust the program as necessary and ensure asset management projects take priority.	Transportation Development Division (TDD) Director	Continue to discuss the outstanding issue impacting the program with the Commission. A 2022 Business Plan objective is to improve the project delivery cycle to improve agility and reduce waste.
	1B. Coordinate with the Association of General Contractors (AGC) and industry partners to discuss and address impacts of these issues.	TDD Director	Meet to coordinate as needed.
	1C. Continue research on alternative materials and construction strategies to construct and maintain assets more cost effectively over their life cycles.	Pavement and Bridge Management Teams (PBMT)	Continuous; examples include improved pavement treatments and use of accelerated bridge construction. (<i>Same as 5C.</i>)

Prioritization Activity

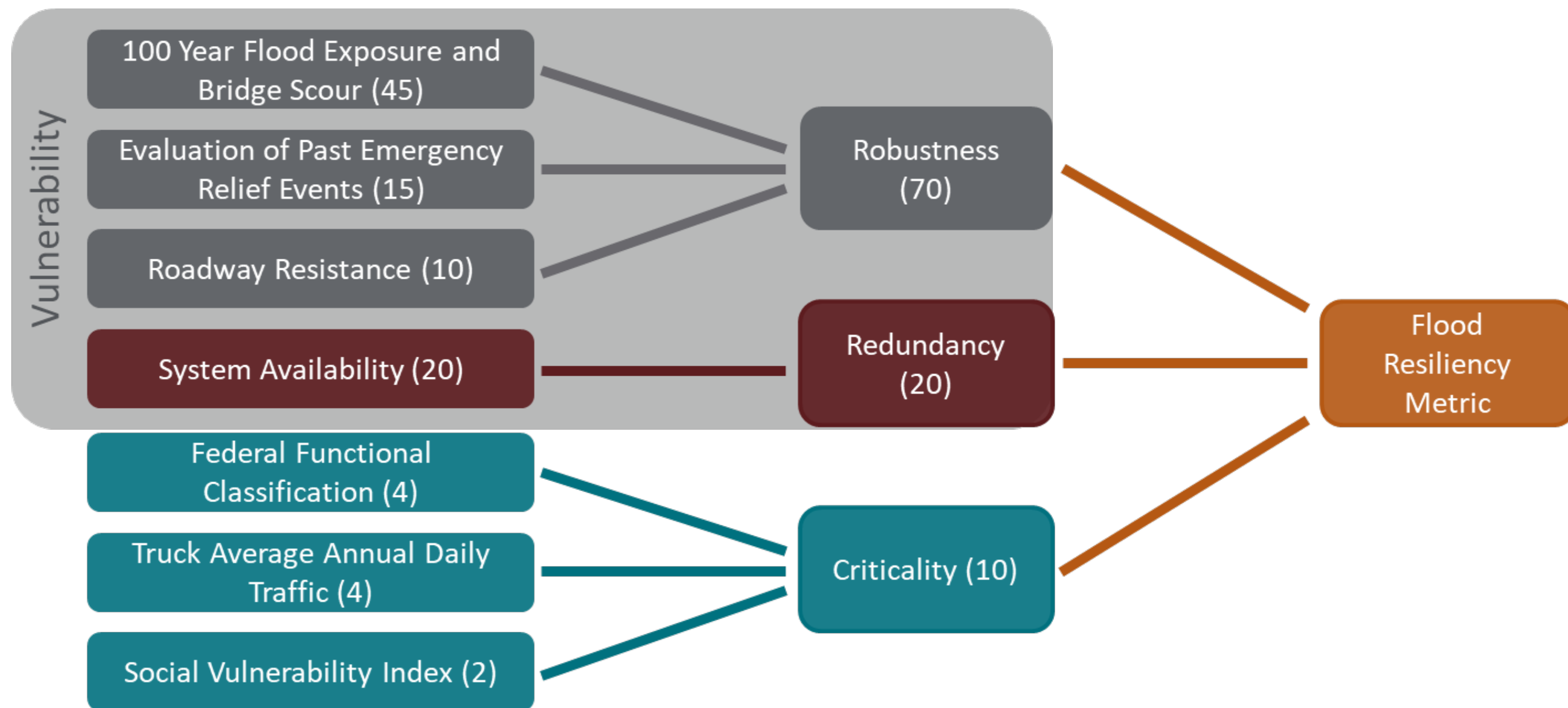
For this activity we will be using Mentimeter. You will need to either login to it using your phone or other device.

Go to: menti.com
Code: 9963 3693



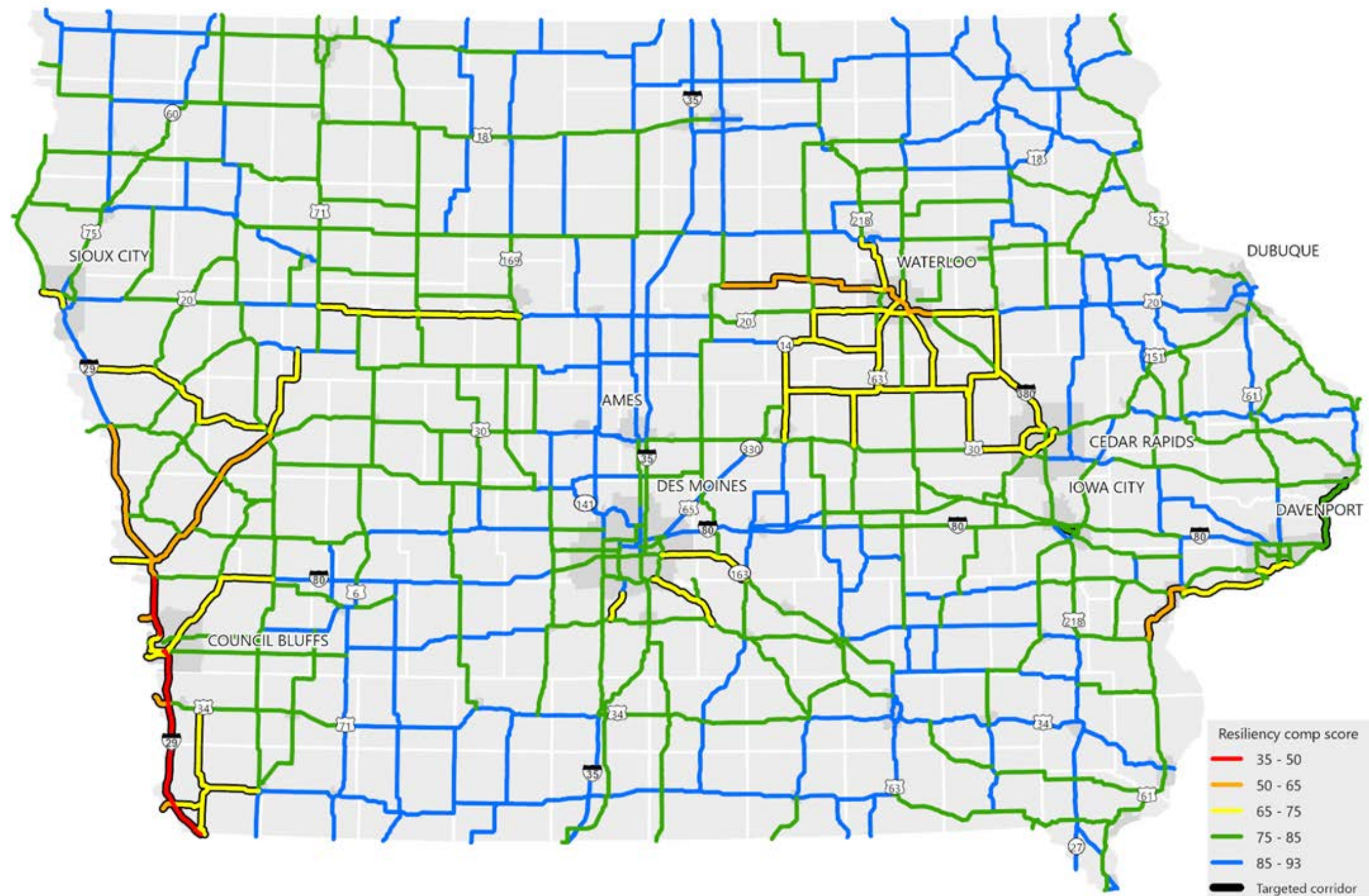
Resilience Improvement Plan: Chapter 3

- Existing analysis



Resilience Improvement Plan: Chapter 3

- Existing analysis



Resilience Improvement Plan: Chapter 3 discussion

- What other analysis should be considered for this chapter?
 - two dimensional base level engineering
 - White paper
 - Check drought plan - Jack
 - Network redundancy - Matt
 - Snow drifting – Kent
 - Living snow fence etc.
 - Premature pavement damage/maintenance – Scott
 - Wishlist
 - Winter severity index - Tina
 - Pavement buckling/blow up

Resilience Improvement Plan: Chapter 3 discussion

- What assets should be considered for this plan?
 - cycling infrastructure
 - transit infrastructure
 - waterway infrastructure
 - Garages & equipment locations
 - Freight rail
 - Amtrak
 - Salt/sand – supply chain
 - Electrical and data infrastructure
 - Emergency response?

Resilience Improvement Plan: Chapter 3 discussion

- What important data sets should be included (levees, dams, etc.)?
 - National levee data set - Chris
 - Every levee
 - DNR-non-levee embankments
 - Dam - Chris
 - Statewide dam data set
 - Flood insurance rate maps - Chris
 - Depth grids - Chris
 - drainage districts
 - Vulnerable population data? – Matt
 - Justice 40

Resilience Improvement Plan: Chapter 3 discussion

- Who would like to review this chapter?
 - Chris
 - Steven
 - Jack
 - Matt
 - Justin

Resilience Improvement Plan: Where are we going?

- Chapter 4: Strategies and Implementation?
 - Topics
 - Implementation of this plan
 - Iowa's resiliency toolbox
 - Strategies
 - Project selection/programming process