

Resilience Improvement Plan (RIP)

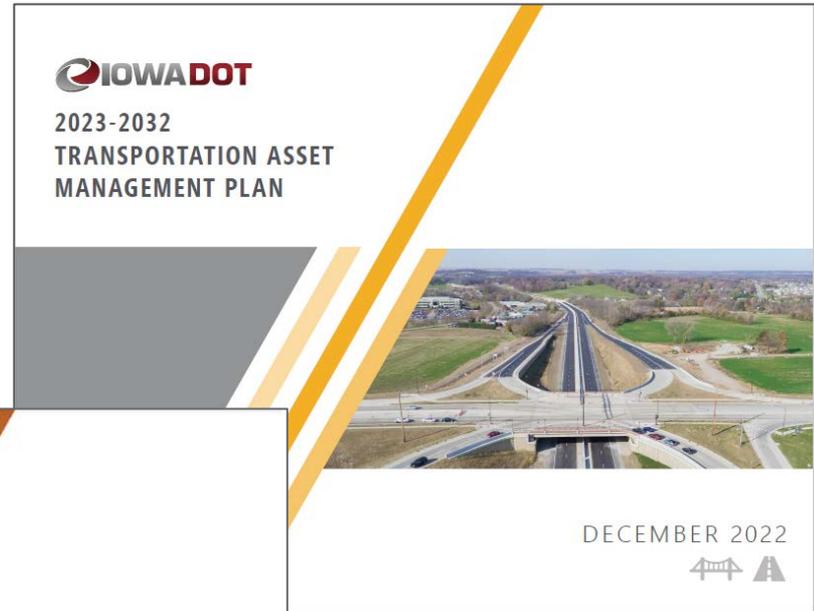
What is a RIP?



Resilience Improvement Plan (RIP)

- What is a RIP?
 - Its new!
 - A RIP is a plan developed by a State DOT to address surface transportation system resilience to current and future weather events and natural disasters.
 - It is an integral part of the transportation planning process.
 - A RIP should be informed by asset management plans, evaluations of repeatedly damaged facilities and state freight plans.
 - Must be consistent with State and local hazard mitigation plans.
 - May help identify vulnerabilities, develop proposed resilience solution, and schedule and prioritize resilience improvements to meet the needs of travelers.

Resilience Improvement Plan (RIP)



Resilience Improvement Plan (RIP)

- What is required in a RIP
 - A RIP is voluntary, but the benefit to states is to receive an authorized reduction in the non-federal share of the cost of a project.
 - 7 percentage points if the state has developed a RIP and prioritized the project in the RIP.
 - 3 percentage points if a State RIP is incorporated into the Metropolitan transportation plan or the statewide long-range transportation plan.

Proposed Outline

What will be covered in the
RIP?



Proposed Outline



Chapter 1: Introduction and Background

- What is Resiliency
- Iowa DOT's Resiliency Efforts
- Why Resiliency Matters
- What is a RIP
- How the RIP was developed
- Appendix: How this plan relates to others.



Chapter 3: Iowa's Hazard

- Natural hazards summary
- Other hazards summary
- Hazard assessment
- Implications to Iowa's transportation system



Chapter 2: Iowa's Climate and Weather

- The difference between weather and climate
- Iowa's climate over time and previous natural disasters
- Preparing for future weather patterns



Chapter 4: Strategies and Implementation

- Implementation of this plan
- Iowa's resiliency toolbox
- Strategies
- Targeted corridors and segments
- Project selection/programming processes

Proposed Outline



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Chapter 2: Iowa's Climate and Weather

- **The difference between weather and climate**
- **Iowa's climate over time and previous natural disasters**
- **Preparing for future weather patterns**



Chapter 4: Strategies and Implementation

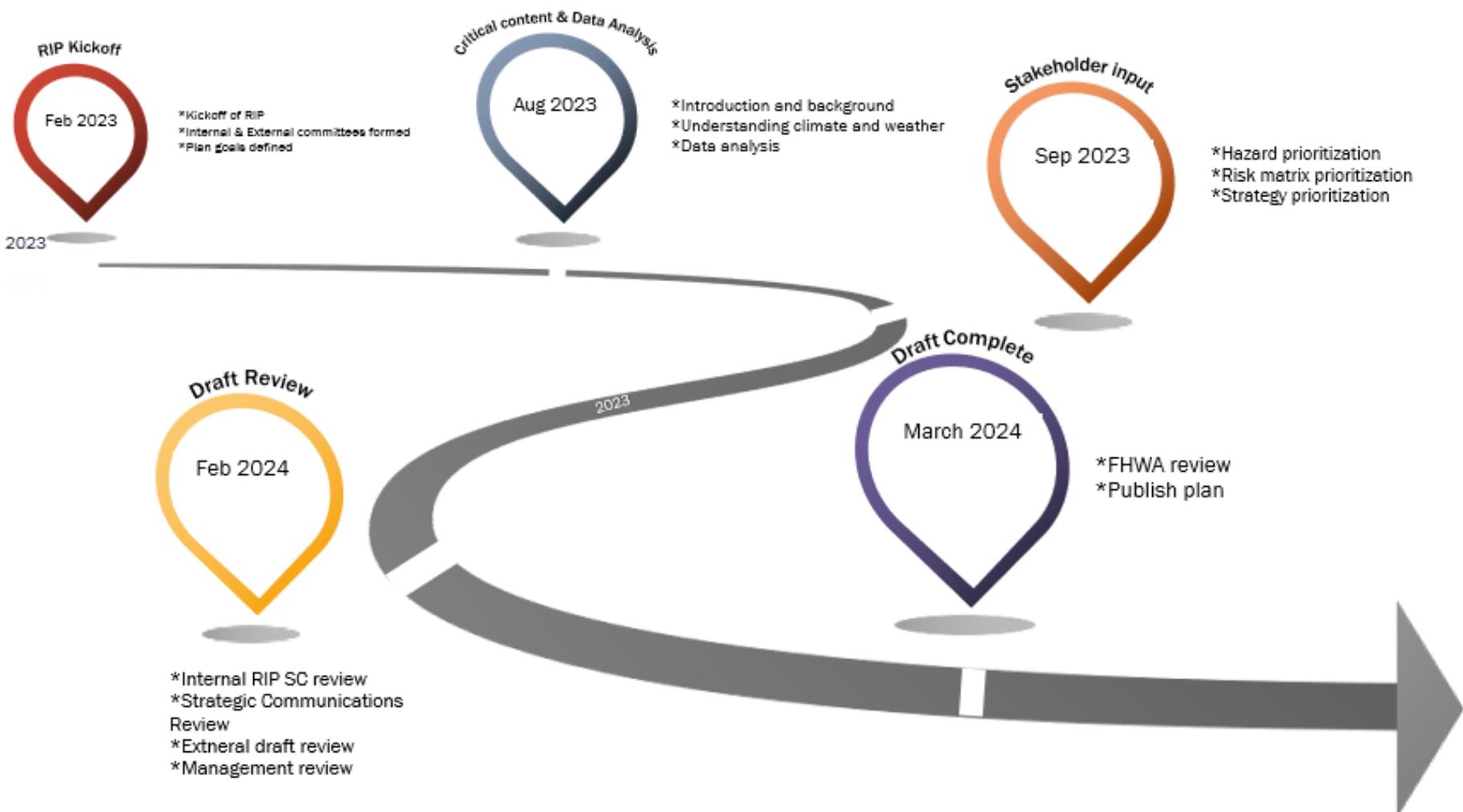
- Implementation of this plan
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Timeline

Where are we in the process?



Resiliency Working Group



Discussion Topic

Chapter 2: Iowa's Climate and
Weather?



Chapter 2: Iowa's climate over time and previous natural disasters

- What sources of information are the best to use in developing this section of the RIP
 - Ideas generated:
 - 1: All Hazard Mitigation Plan
 - 2: Iowa Climate Assessment
 - 3: 4th and or 5th National climate Assessment
 - 4: NCEI State Assessments
 - 5: Weather.gov (current/record/historical)

Chapter 2: Iowa's climate over time and previous natural disasters

- What previous events should be highlighted in our plan?
 - Ideas generated:
 - 1: June 30th / July 1 2018 Ankeny/Clive flash flooding event
 - 2: 2008 flood CR
 - 3: 2020 Derecho
 - 4: Chronic flooding in Davenport/ Quad Cities
 - 5: March 2019 bomb cyclone (impacts to I-29)
 - 6: May 2011 flooding (I-29 closed for months)
 - 7: 2022 Drought Mississippi
 - 8: Winter/Blizzard of 1936
 - 9: Drifting snow

Chapter 2: Preparing for future weather/climate patterns

- What does the science say about both near-term and long-term changes in Iowa's weather?
 - Ideas generated:
 - 1: Temperature increase (.1 degree per decade and in the most recent 30 years it has increased to about .3 degrees per decade)
 - 2: More floods, drought, extremes
 - 3: More rain in shorter amounts of time (flash floods, scour, etc.)
 - 4: Ice storms and wet snow events

Chapter 2: Preparing for future weather/climate patterns

- What efforts/resources exist in this topic area for Iowa? (research, plans, tech memos, white papers)
 - Ideas generated:
 - 1:
 - 2:
 - 3:
 - 4:
 - 5:

Discussion Question Skipped

Chapter 2: Preparing for future weather/climate patterns

- What are some creative/unique ways of discussing changes in climate over time?
 - Ideas generated:
 - 1: 2011 DNR report
 - 2: Focus on economic or direct/indirect impacts
 - 3: Sticking with observable data
 - 4: Everything that falls north of us flows by Iowa (MO and MS rivers)
 - 5: loaded dice/roller coaster analogy
 - 6: 10 percent increase in peak rainfall becomes a 25 percent increase in runoff; risk increase is even greater

Chapter 2: Overall

- Who would be interested in review of chapter 2?
 - Ideas generated:
 - 1: Justin Glisan
 - 2: Bill Gallus
 - 3: Jack Stinogel

Chapter 2: Overall

- What other items, topics, thoughts should be considered?
 - Ideas generated:
 - 1: Stakeholder input from outside groups
 - 2: Recognition of how our resilient improvements may impact others
 - 3: Can roadways be used to retain/mitigate flooding