

# Integrating Resiliency at CDOT Environmental Planning Fact Sheet



## The Concept and Value

Change is a constant in our world, and adopting a resiliency mindset will help CDOT improve Colorado’s transportation system. Increasing the robustness of our system makes sense, and doing it efficiently requires application of these processes during Planning and Environmental Linkage (PEL) studies.

In order to develop a process for integrating Risk & Resiliency into daily business practices, subject matter experts were assembled to map out how and when risk and resiliency can and should be incorporated into PEL studies. Incorporating resiliency into PELs further reinforces the National Environmental Policy Act (NEPA) and helps meet the intent of Policy Directive 1905.0, enhancing the protection of Colorado’s transportation system. Several processes were documented that outline various scenarios and answer the questions: who starts the resiliency discussion, when does the discussion begin, how are resiliency benefits calculated and documented, and how is resiliency documented in a PEL.

***The goal of this Case Study was to develop a process for incorporating resiliency into a PEL and recommend an approach to include in the NEPA manual and PEL handbook for future environmental documents.***

## What is Resilience?

**American Association of State Highway and Transportation Officials (AASHTO) Adopted Definition:**

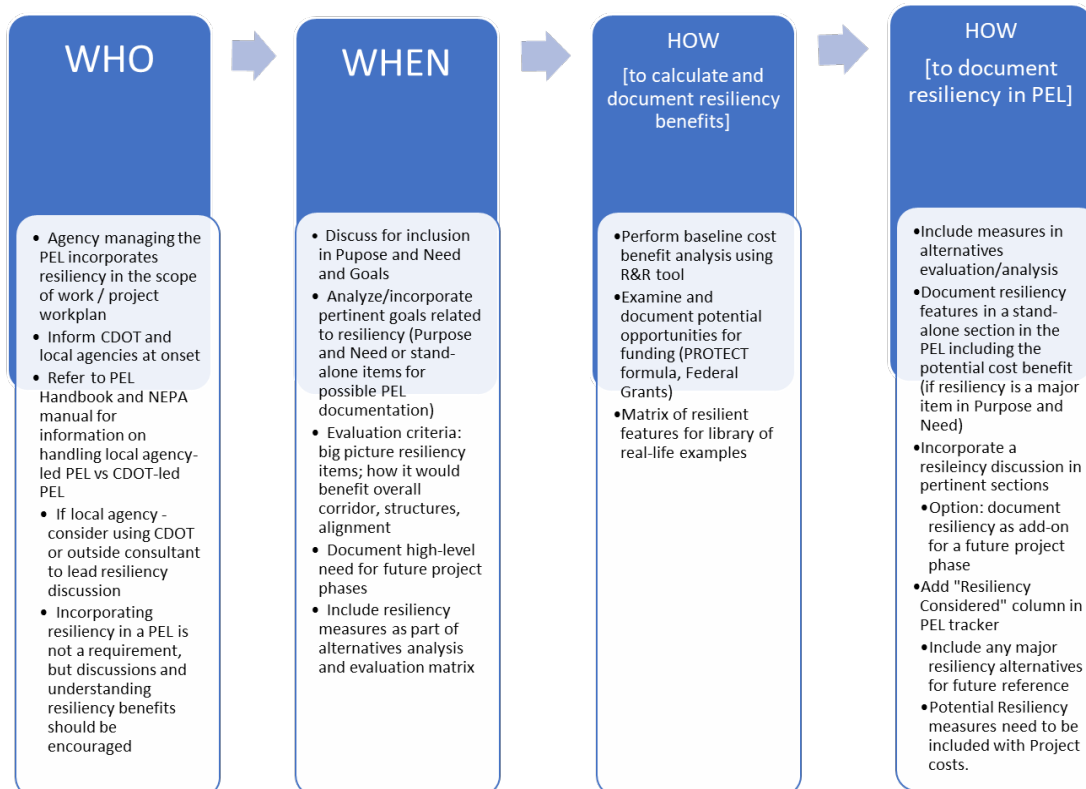
Resiliency is “the ability to prepare and plan for, absorb, recover from, or more successfully adapt to adverse events.”

**Colorado Resilience Working Group Definition:**

Resilience is the ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges – including disasters and climate change – and maintain quality of life, healthy growth, durable systems, and conservation of resources for present and future.

## How To

The process steps below provide guidance for incorporating resiliency into a PEL.



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**COLORADO**  
Department of Transportation

## Case Study Results

This Case Study wrapped up efficiently after a few brainstorming workshops, due to the helpful collaboration and feedback from the SMEs. Successful outcomes of this Case Study include chapters written by the team for the PEL Handbook and NEPA manual. While developing the process, the case study team also developed some key points and considerations to ensure the continued success of incorporating resiliency into future PELs:

- Use the PEL studies from US 34, CO 66 and South Powers as references to this Case Study and ensure they are easily accessible as examples for future PELs
- Include examples that show how using resiliency measures—including a benefit-cost analysis—could save money, harden assets to withstand future natural threats, and ultimately be used in the design and construction phases of projects, ensuring both Owner and User risks are minimized
- Update the PEL Handbook and NEPA manual chapters as new information becomes available

## Key Takeaways

- Incorporating resiliency in NEPA is a new philosophy that helps meet the intent of Policy Directive 1905.0
- As this process continues to develop for identifying resiliency during PELs, steps will also need to be developed for incorporating resiliency during the NEPA process
- Ensure that Resilient ideas documented in the PEL are carried into the next phases of the Project

## Contacts and Resources

For questions, please contact:

### Claire Martini

DTD—Risk and Resilience Program manager

303-757-9629

[claire.martini@state.co.us](mailto:claire.martini@state.co.us)

Contact [claire.martini@state.co.us](mailto:claire.martini@state.co.us) for access to any tools not available below.

### Additional resources include:

- [CDOT GIS Map](#)
- [Resiliency website](#)
  - Cost Planner Tool
  - R&R Tool
  - NEPA Manual
  - PEL Handbook

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