SH 7 Interactive Planning Session
September 18, 2014

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Interactive Planning Session Meeting Agenda

- Introductions
- 2013 Flood Damage to SH 7
- Overview of Emergency Repair Project
- Status of Temporary Roadway
- Overview of Permanent Repair Project
- Agency Discussion on SH 7 Work
- Communication Plan

CDOT Flood Recovery

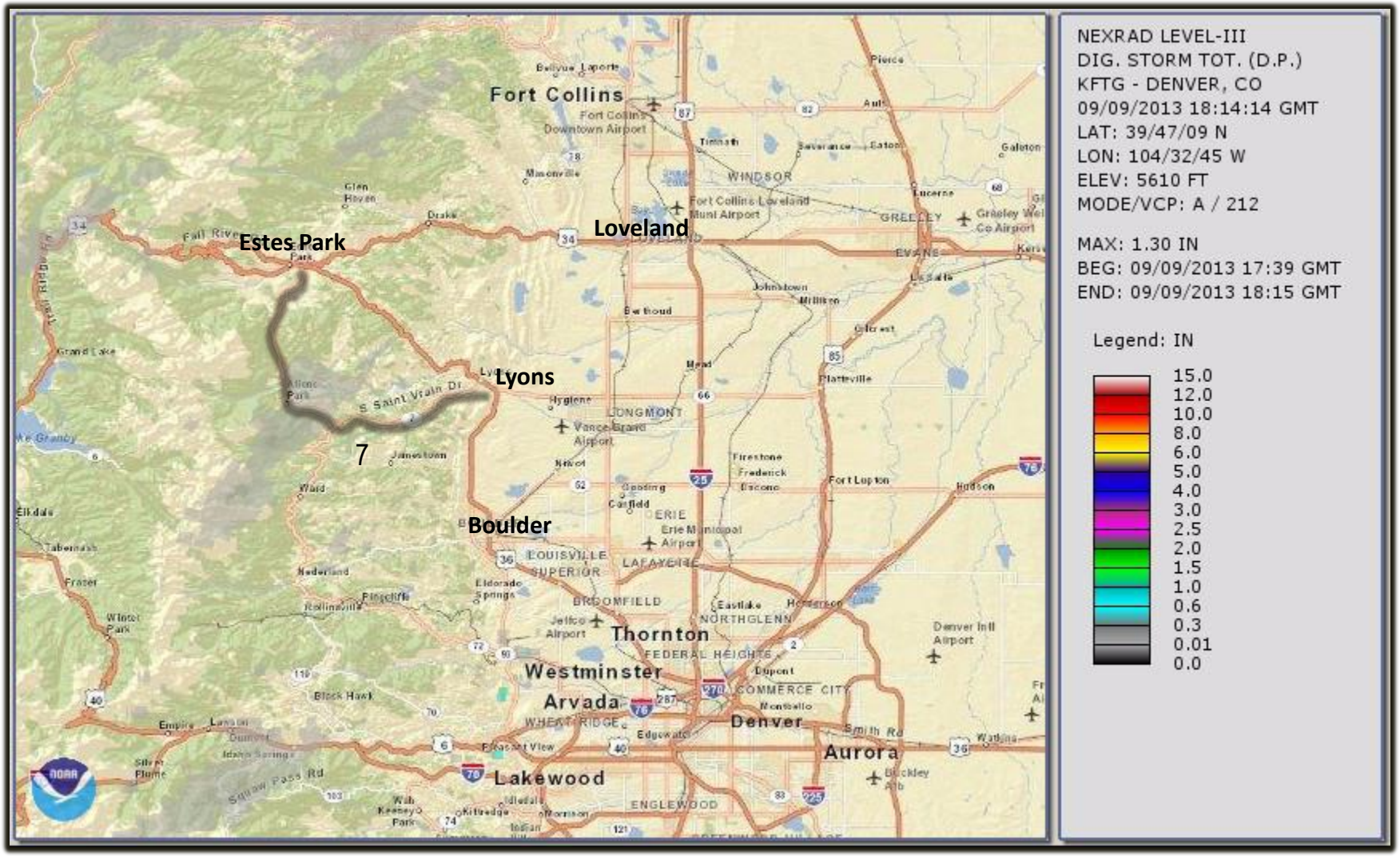
- Initial Flood Impact
  - $535 m estimated damage to facilities
  - 486 miles closed

- *Governor's Challenge #1* "Open all road by December 1, 2013"
  - All roads temporary

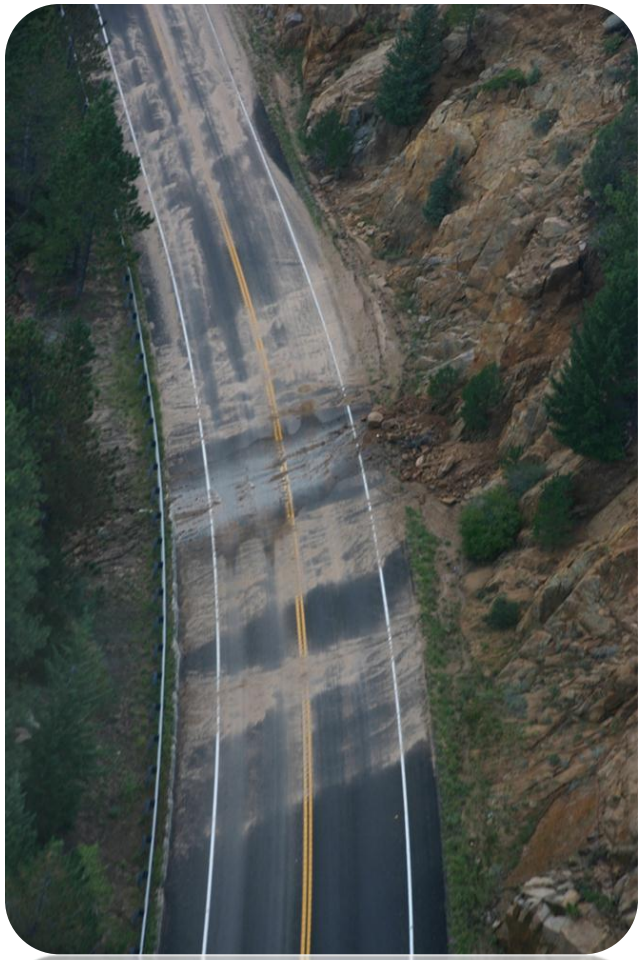
- *Governor's Challenge #2* "Build back better than before"
  - 26 Permanent Repair Projects
  - Resiliency
  - Partnership and Collaboration

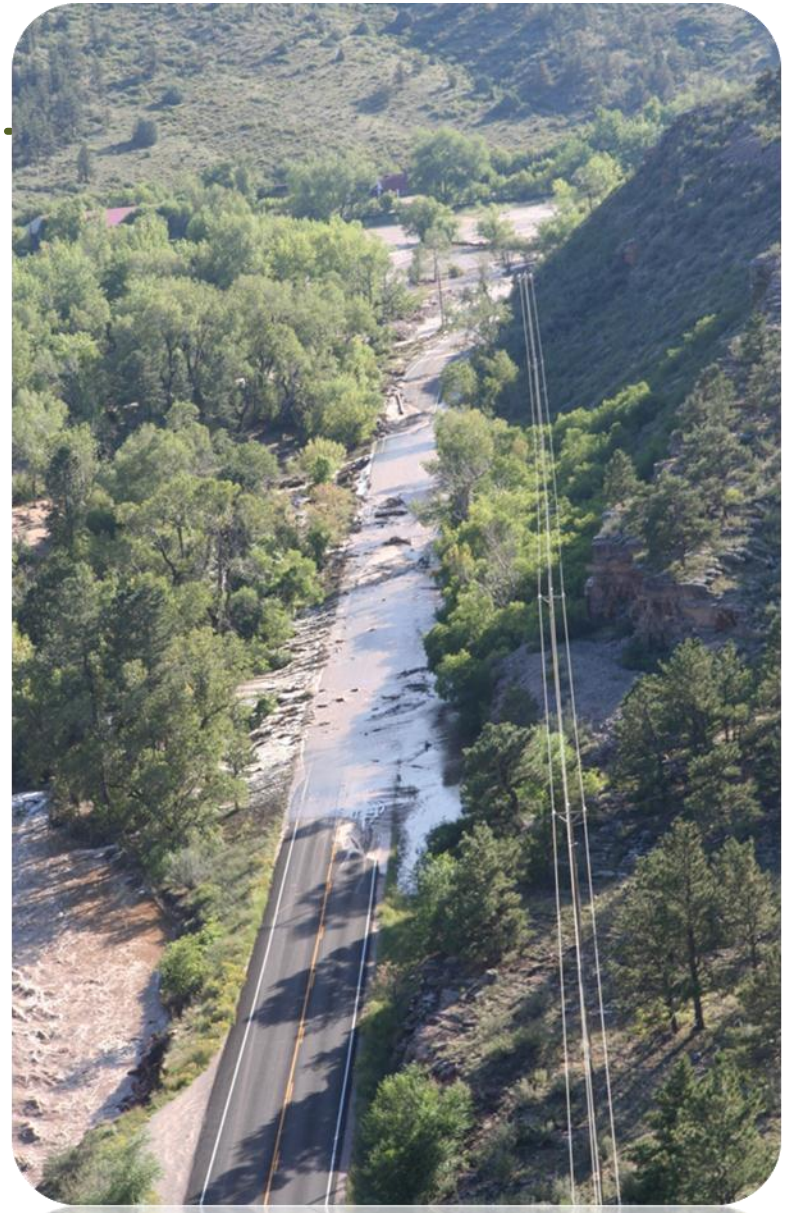
FLOOD 2013

Precipitation September 9th – 13th



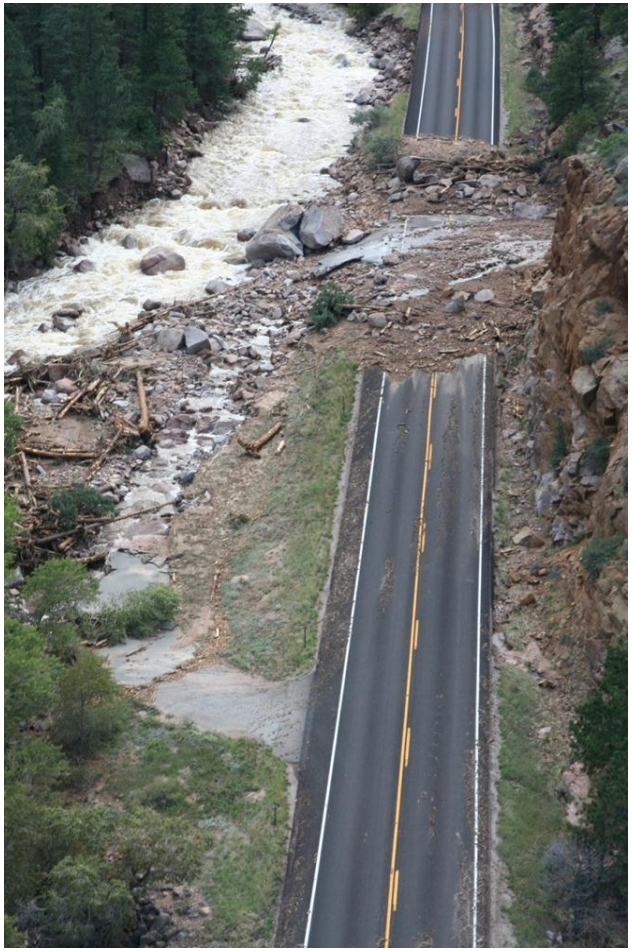
Overtopping

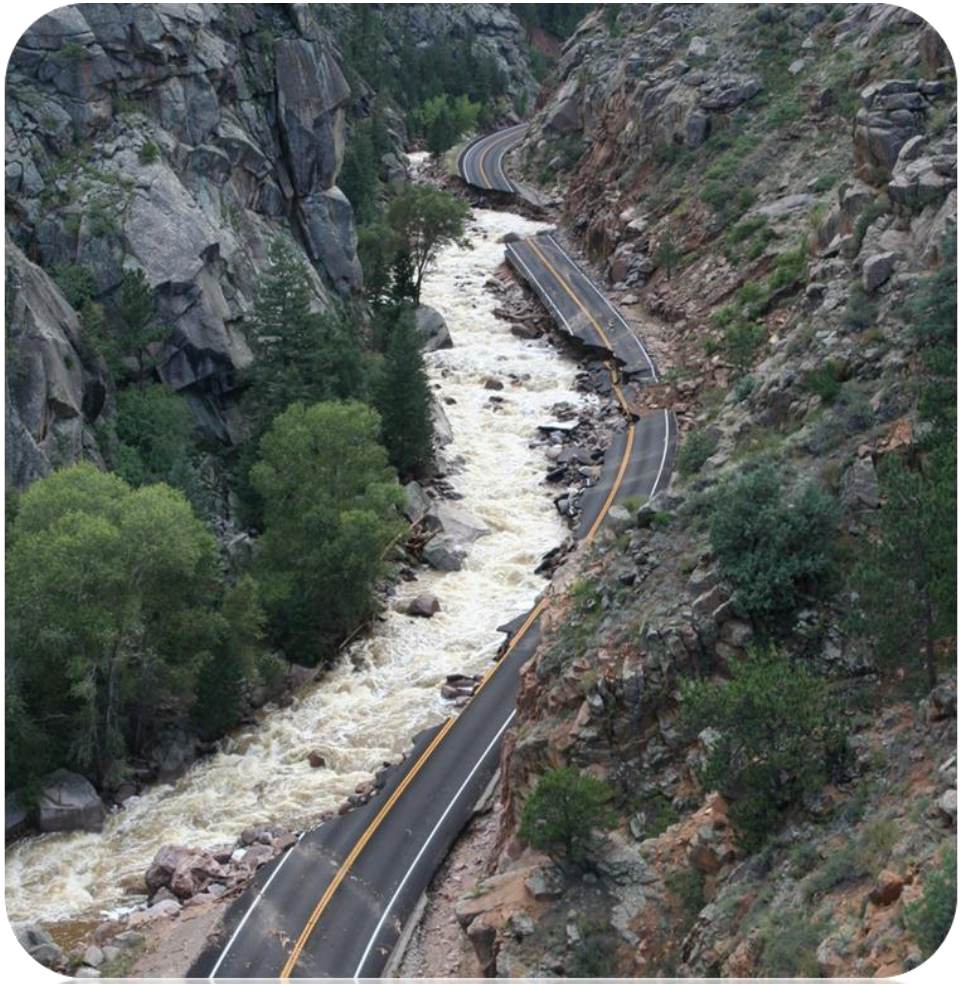


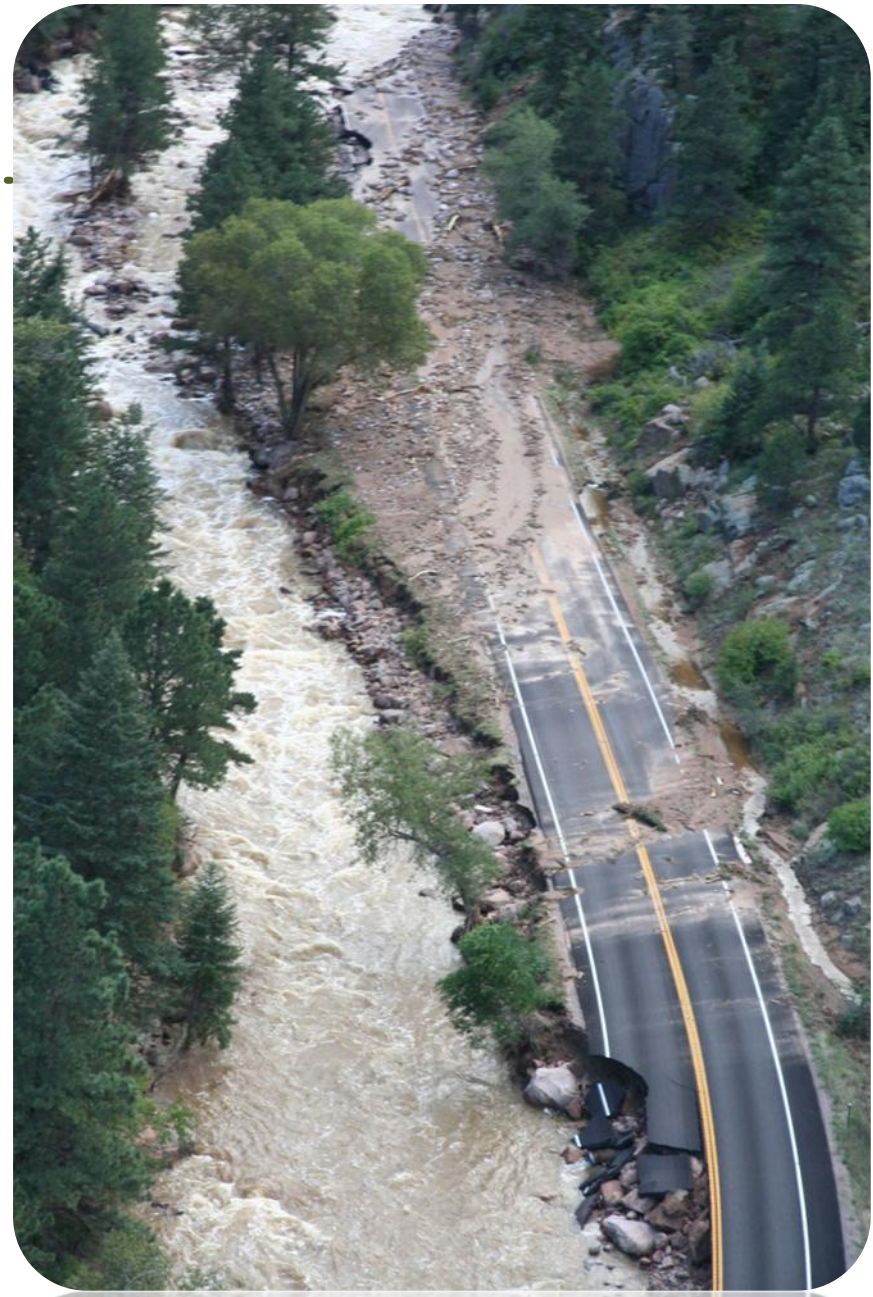


Debris slides

Multiple Severe Damage Sites







Culvert damage

SH 7 Temporary Roadway

- All work is considered temporary
- Temporary roadway was not built to normal CDOT Standards
- Made the best decision with time and resources available
- Safely accommodate traffic
- Remain in place until permanent repairs are made
- Repairs will need to be evaluated for PR project
- Some temporary repairs may be considered permanent

Emergency Work Before and After

Opening Day November 26th

SH 7 Activities

SH7 had been chip sealed in July 2013

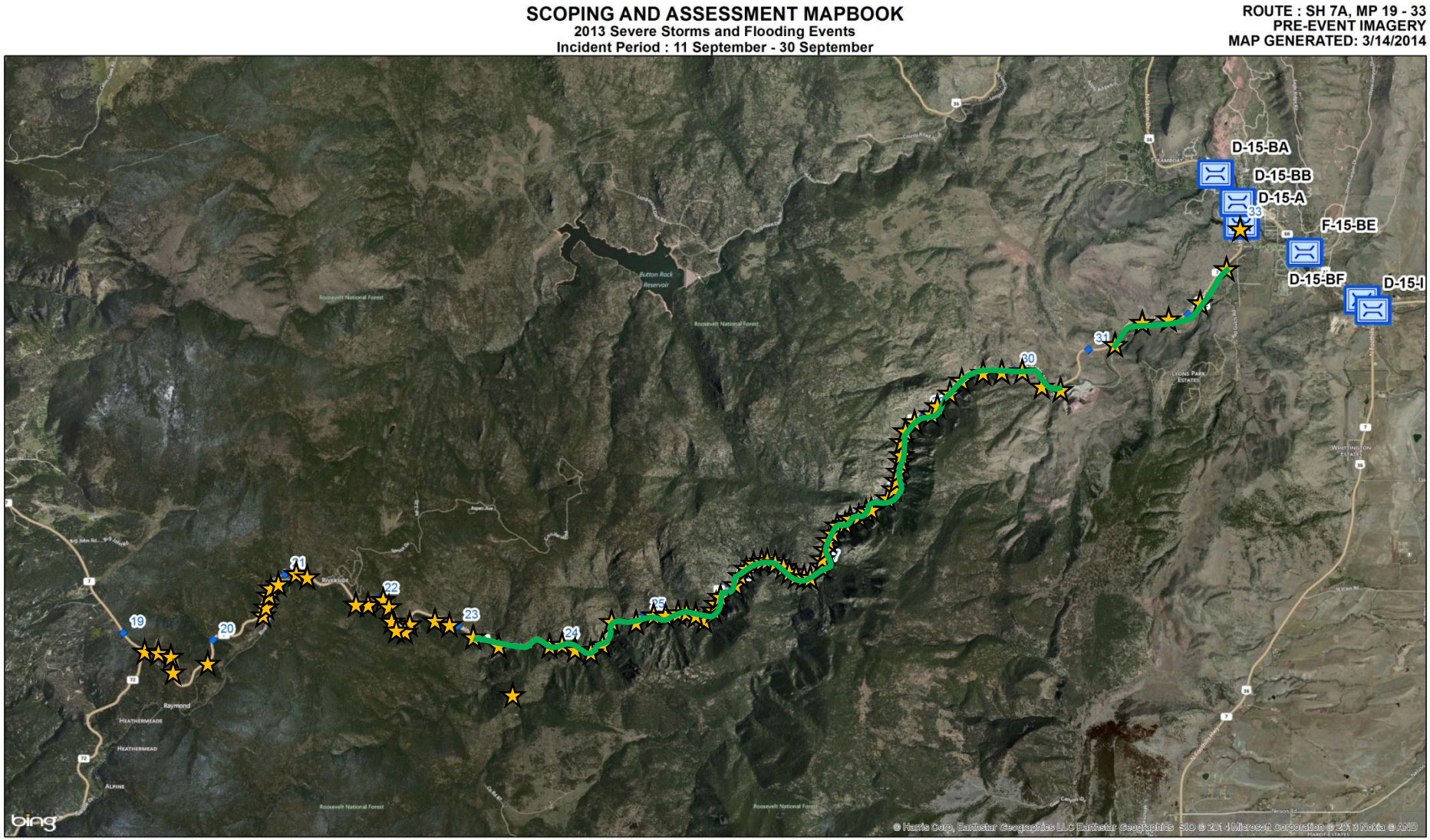
Activities Since November 26th

- Prepared for spring runoff
  - Armored slopes
  - Removed debris

On-going and Future Activities

- Planning for Permanent Repairs
- Working with Stakeholders
  - Local Agencies
  - Other Governmental Agencies
  - St. Vrain River Coalition
- Goal to Start Construction of Permanent Repairs in 2015

SH 007A (Lower) MP 19-33
Damage Assessment Review with FHWA



SH 7 Flood Damage

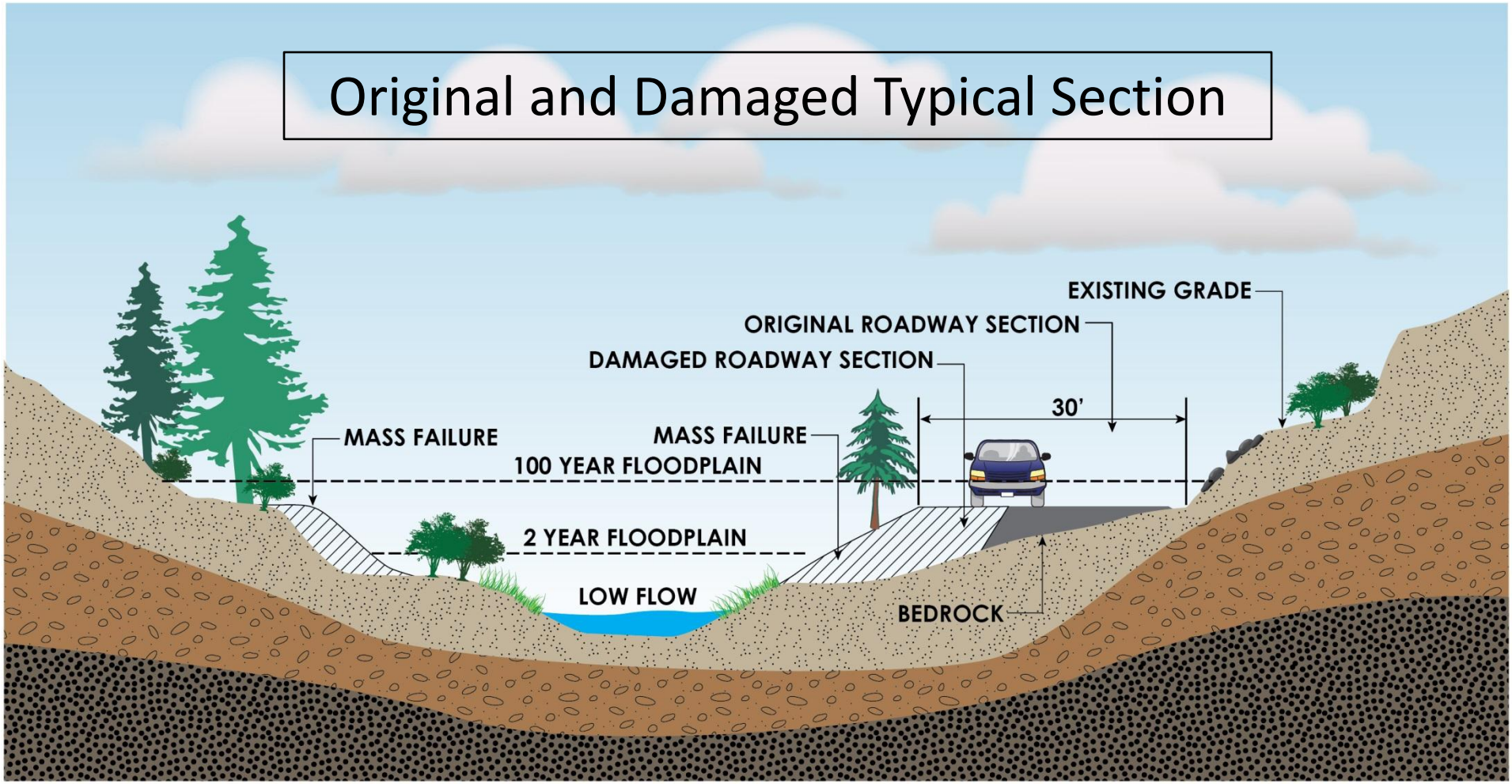
Location	FHWA Determination
MP 19 (Raymond) to MP 23	Not severe
MP 23.3 to 30.5	Severe
MP 31.2 to 32.7	Severe

Risk and Resiliency Analysis

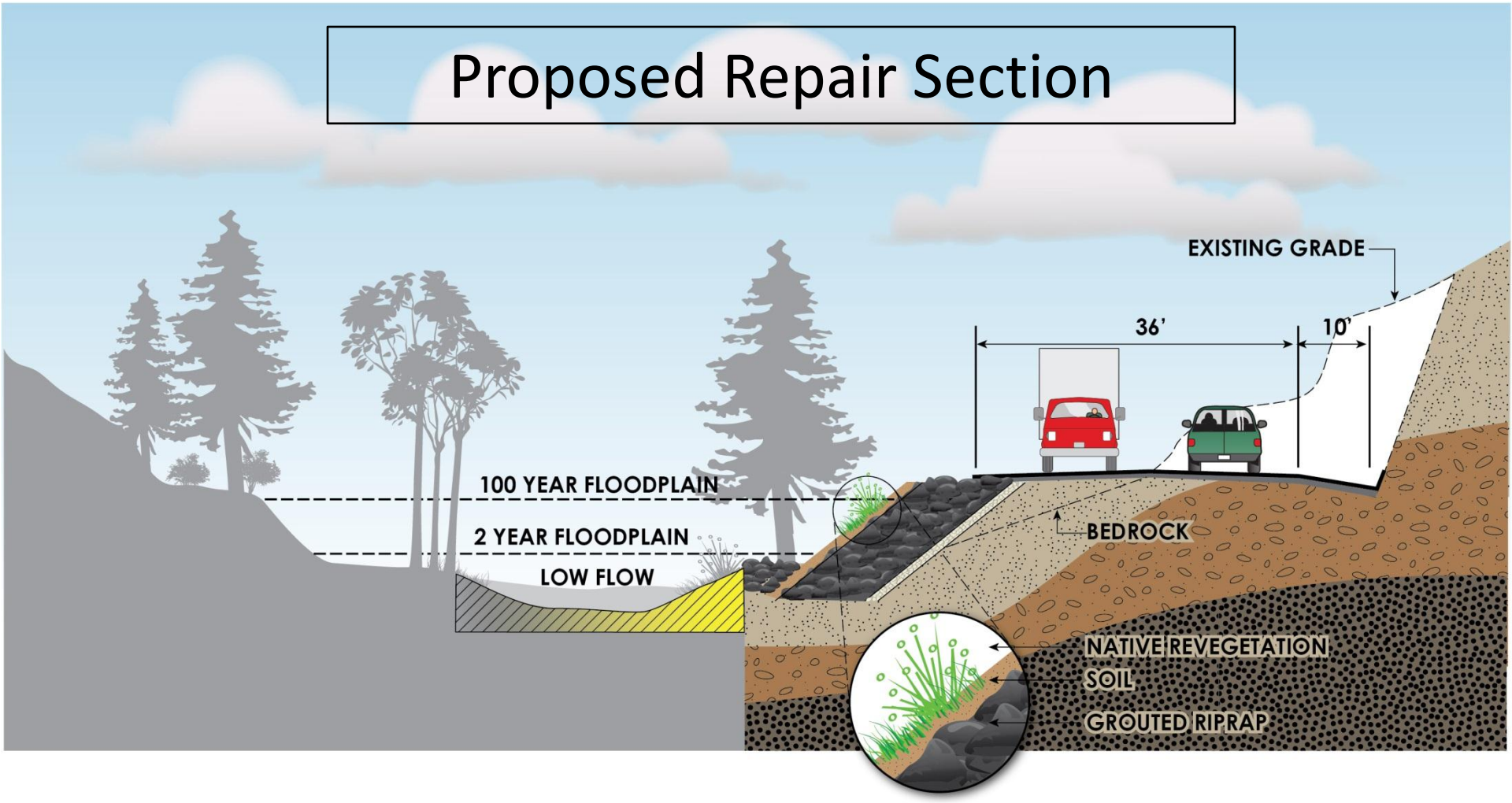
- FHWA requires a risk-based analysis for designing repairs to ensure they are cost effective and reduce the potential for future loss.
- Currently FHWA has not adopted a risk based model for analyzing resiliencies for infrastructure projects
- CDOT & FHWA Piloting an infrastructure model including peer reviews, sensitivity analysis and comparison to FEMA model
- Model considers
  - vulnerability of the asset
  - threat likelihood
  - probability of a successful failure.

"Resilience: Capability to anticipate, prepare for, respond to, and recover from significant multi-hazard threats with minimum damage to social well-being, the economy, and environment."

Repair Concept



Repair Concept



FHWA ER Funding Considerations

- $450 m identified for CDOT flood recovery
- $20 m identified initially for SH7
- FHWA ER has designated much of the corridor as severe, so:
  - What Permanent Repairs (PR) are recommended to restore the highway in-kind to its pre-disaster conditions
  - Where can updated CDOT standards and specifications be applied
  - What Resiliencies, if any, can be introduced to prevent similar flood damages in the future

Permanent Project - Goals

- Provide a safe and dependable route for local and regional traffic and wherever possible, bring the road to standard, evaluate risk and resiliency elements that reduce the potential for severe damage from future natural disasters.
- Restore areas in the adjacent stream corridor and adjacent lands adversely impacted by the 2013 emergency repairs.

Input from Resource Agencies and Stakeholders

- Does your agency have a vision for the corridor?
- What activities do you have ongoing that will impact CDOT design efforts?
- What work have you completed already that CDOT should be aware of?
- What regulations or restrictions should CDOT be aware of during design?
- When do you want input?

Next Steps

- Evaluate project delivery method
- Continue resource data collection and studies
- Conduct public scoping meeting
- Ongoing communication with/Involvement of Stakeholders

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