WILDFIRE READY WATERSHEDS

STATEWIDE POST-FIRE SUSCEPTIBILITY

A PLAN TO IDENTIFY THE RISKS TO LIFE, PROPERTY, AND INFRASTRUCTURE ASSOCIATED WITH THE POST-FIRE HAZARDS AND MITIGATE FUTURE IMPACTS AND LOSSES

September 16, 2021

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

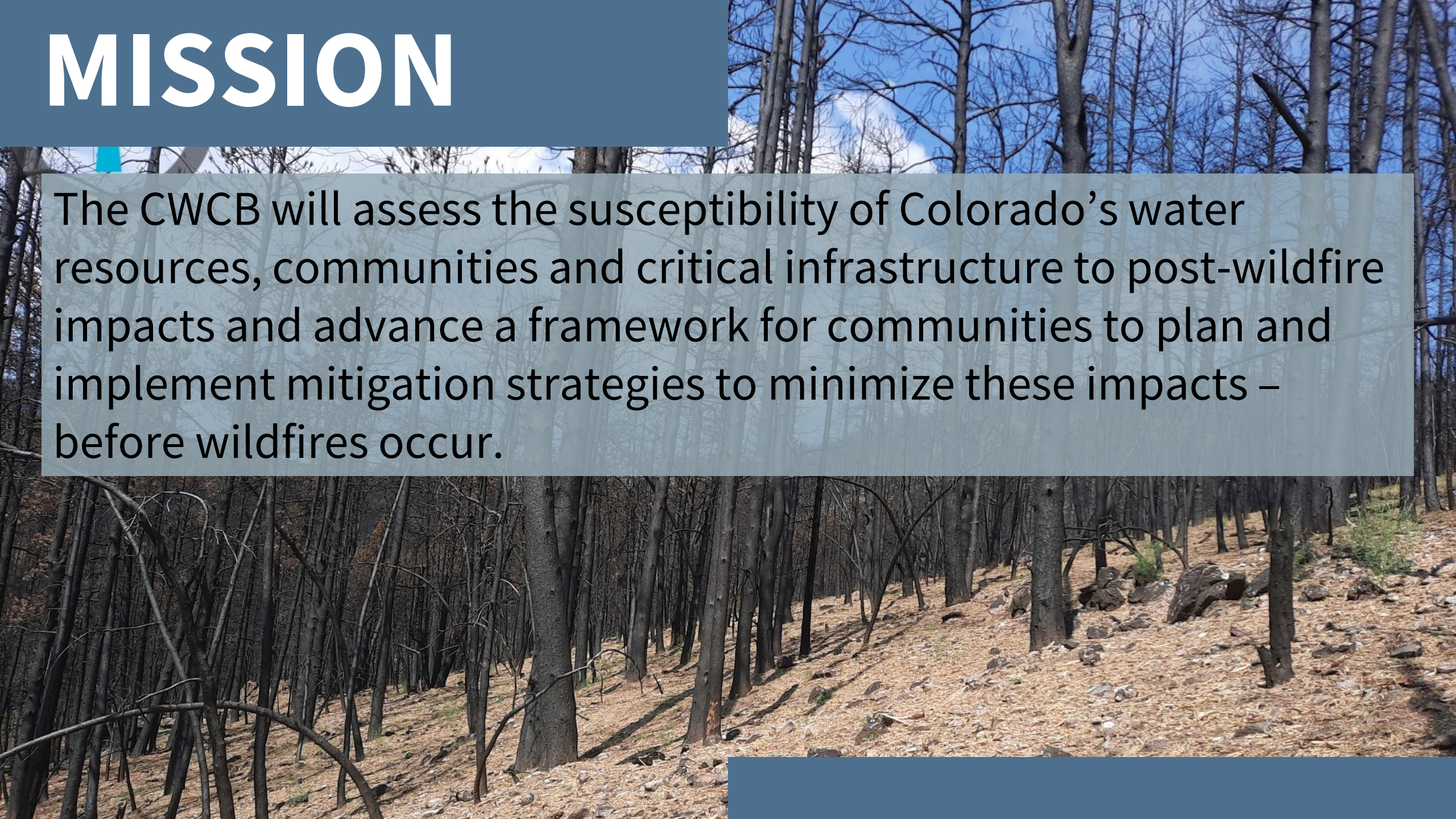
SENATE BILL SB 21-240

The Board shall expend up to five hundred thousand dollars by December 31, 2022, for a statewide watershed analysis to investigate susceptibility of life, safety, infrastructure, and water supplies to wildfire impacts.

VISION

WILDFIRE READY WATERSHEDS

MISSION



The CWCB will assess the susceptibility of Colorado's water resources, communities and critical infrastructure to post-wildfire impacts and advance a framework for communities to plan and implement mitigation strategies to minimize these impacts – before wildfires occur.

STUDY GOALS

1. Define and identify post-wildfire hazards that threaten life safety, property, and infrastructure.

2. Identify the elements of an effective education and communication program that relays the findings, action items, and tools of the assessment.

3. Encourage the use of planning and land management actions to protect the health and resilience of watersheds, wetlands, and stream corridors as a strategy to reduce susceptibility to hazards following wildfires.

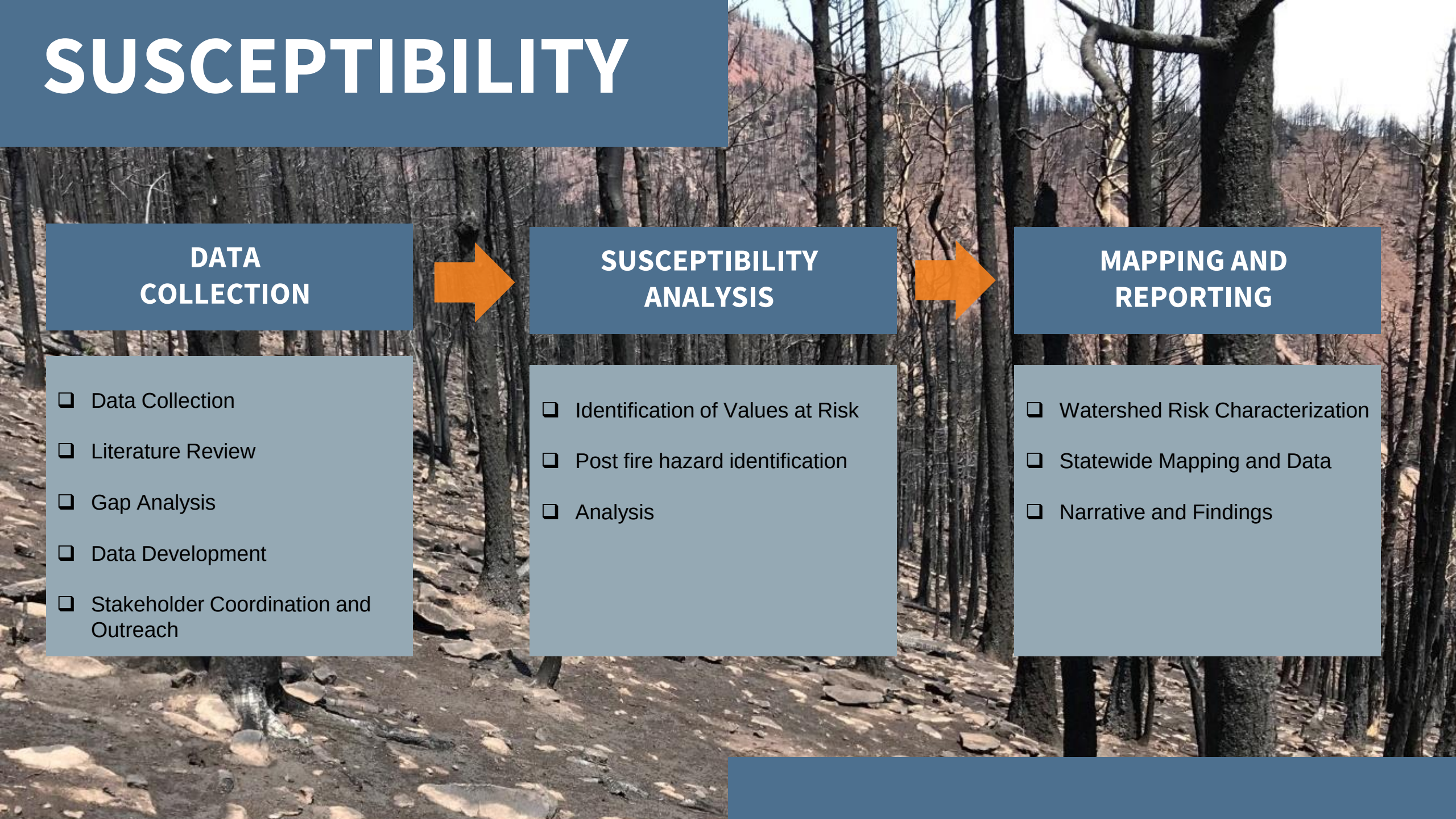
4. Advance a watershed and landscape scale approach to planning and recovery

TWO PART FOCUS

STATEWIDE SUSCEPTIBILITY

FUTURE FRAMEWORK FOR COMMUNITIES

SUSCEPTIBILITY



DATA COLLECTION

- ❑ Data Collection
- ❑ Literature Review
- ❑ Gap Analysis
- ❑ Data Development
- ❑ Stakeholder Coordination and Outreach

SUSCEPTIBILITY ANALYSIS

- ❑ Identification of Values at Risk
- ❑ Post fire hazard identification
- ❑ Analysis

MAPPING AND REPORTING

- ❑ Watershed Risk Characterization
- ❑ Statewide Mapping and Data
- ❑ Narrative and Findings

SUSCEPTIBILITY

IDENTIFICATION OF VALUES/ASSETS AT RISK

- Water Supplies
- Agriculture and food production
- Private property (homes and/or businesses)
- Critical facilities
- Transportation infrastructure
- Utility infrastructure
- Human life and safety
- Critical habitats
- Recreational facilities and uses
- Nature-based infrastructure (Blue/Green infrastructure)
- Mining (reclaimed/active)
- Cultural resources (heritage values)
- Superfund sites

SUSCEPTIBILITY

POST-FIRE HAZARDS

- Floods after fire
- Fluvial
  - erosion and deposition
- Debris flows
- Hillslope erosion
- Landslides
- Contamination

SUSCEPTIBILITY

VULNERABILITY EVALUATION

Impacts to be Evaluated

- Loss of life
- Flooding and flood damage
- Debris and fluvial impacts (mudflow and rockfall)
- Water quality and quantity
- Natural resource loss
- Transportation and utility interruptions
- Dam failure (jurisdictional and non-jurisdictional)
- Economic (business closures, loss of property, wages, time)

SUSCEPTIBILITY

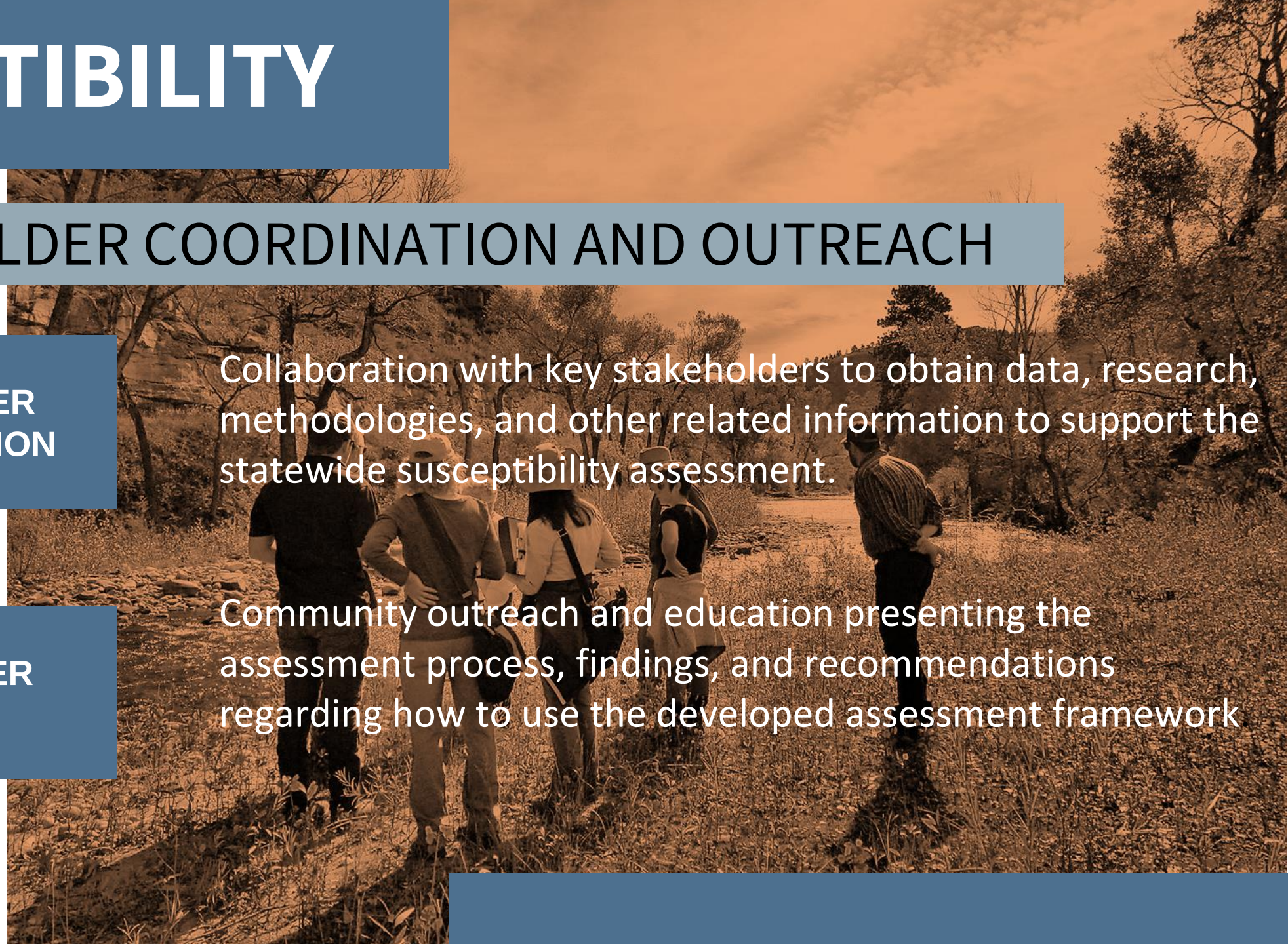
STAKEHOLDER COORDINATION AND OUTREACH

STAKEHOLDER COLLABORATION

Collaboration with key stakeholders to obtain data, research, methodologies, and other related information to support the statewide susceptibility assessment.

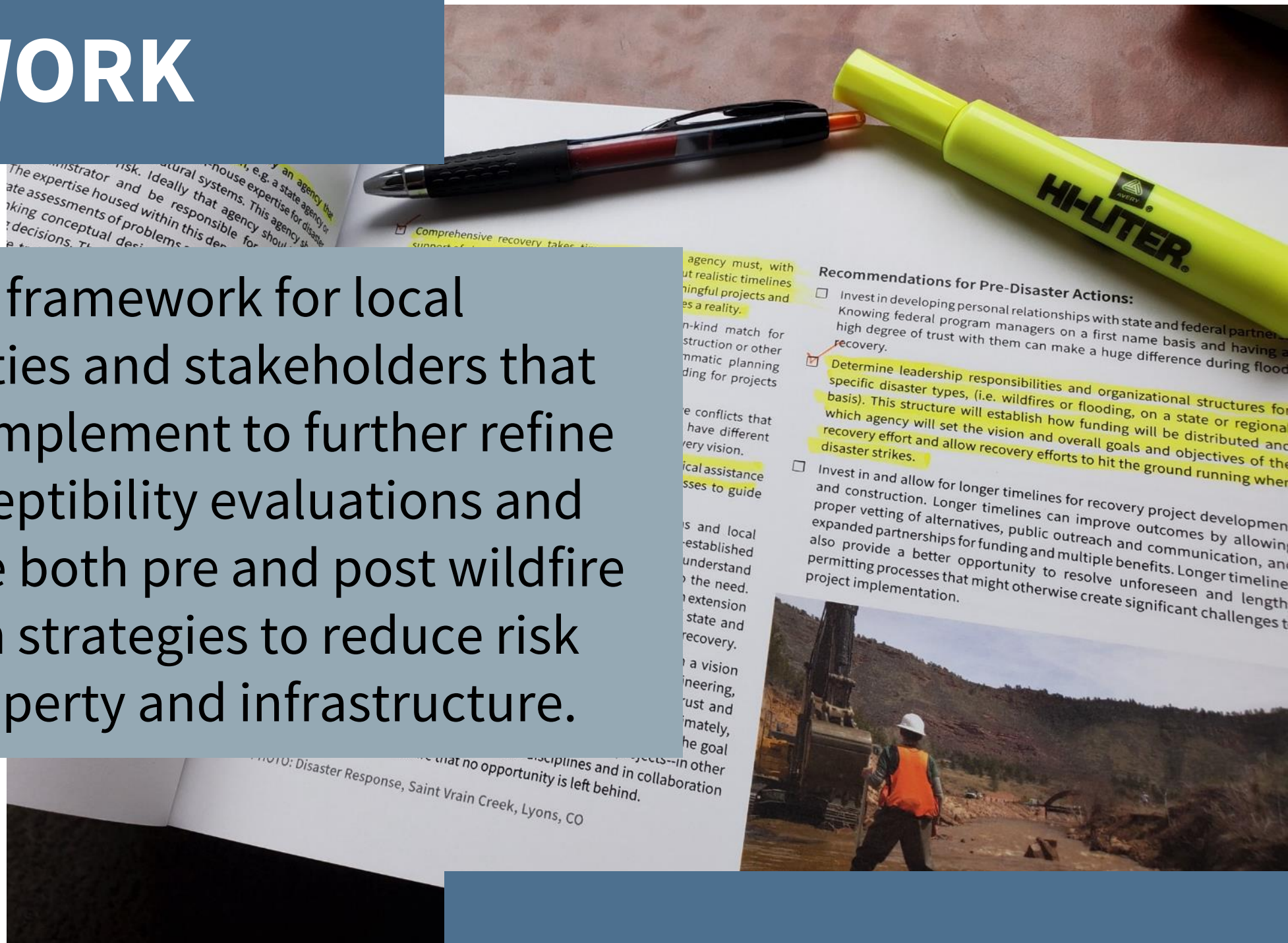
STAKEHOLDER OUTREACH

Community outreach and education presenting the assessment process, findings, and recommendations regarding how to use the developed assessment framework



FRAMEWORK

Develop a framework for local communities and stakeholders that they can implement to further refine their susceptibility evaluations and determine both pre and post wildfire mitigation strategies to reduce risk to life, property and infrastructure.



FRAMEWORK

MAJOR ELEMENTS OF THE FRAMEWORK

Stakeholders and Partners

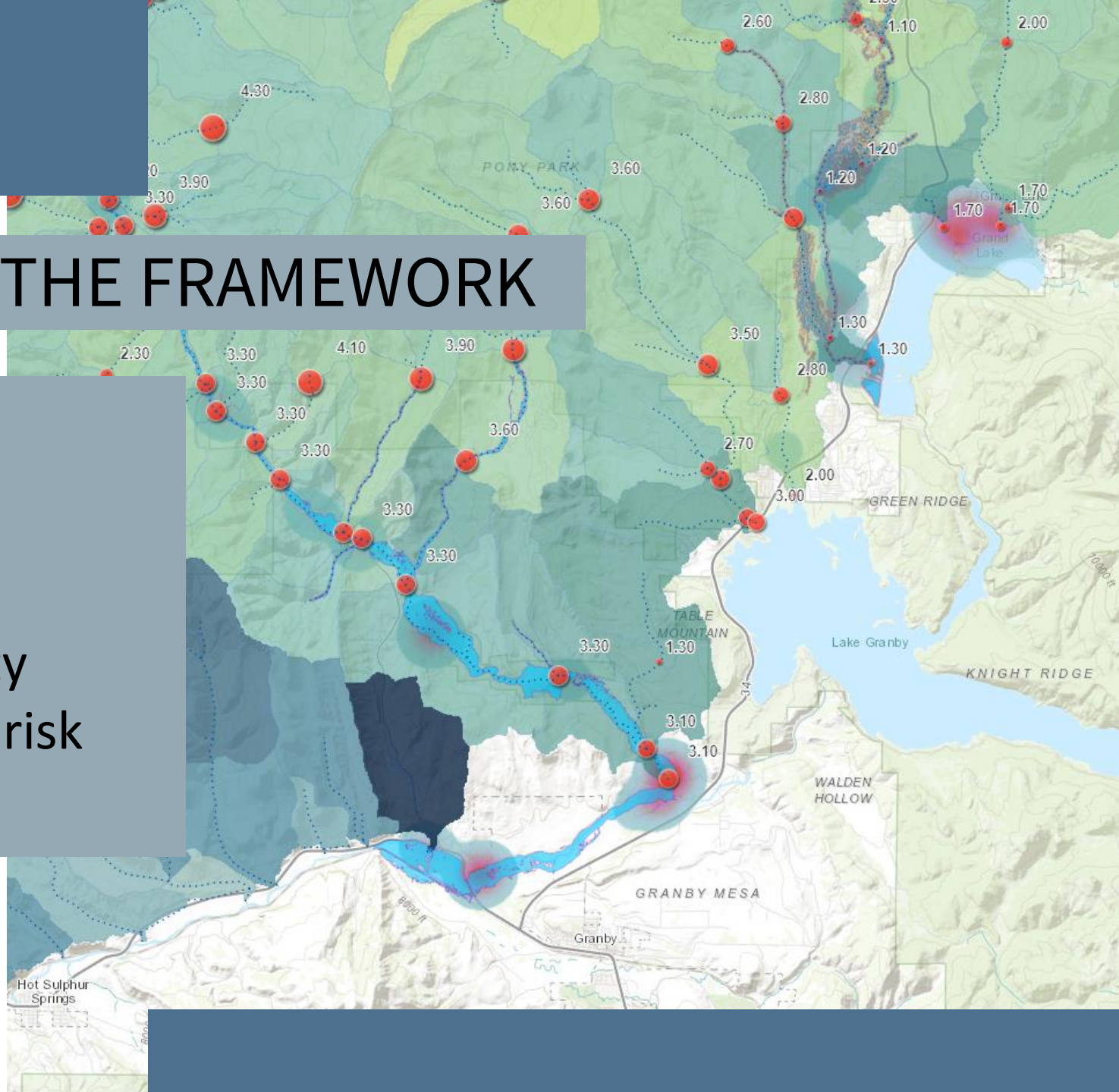
Development of a comprehensive guide of funding partners, resources, and agency planning and recovery teams. Outline a process for local agencies to work with those partners to establish values at risk and appropriate mitigation actions, both before and after fires.

FRAMEWORK

MAJOR ELEMENTS OF THE FRAMEWORK

GIS Preparedness

Checklist of data needed to perform a comprehensive watershed scale susceptibility assessment and/or post-fire risk assessment.



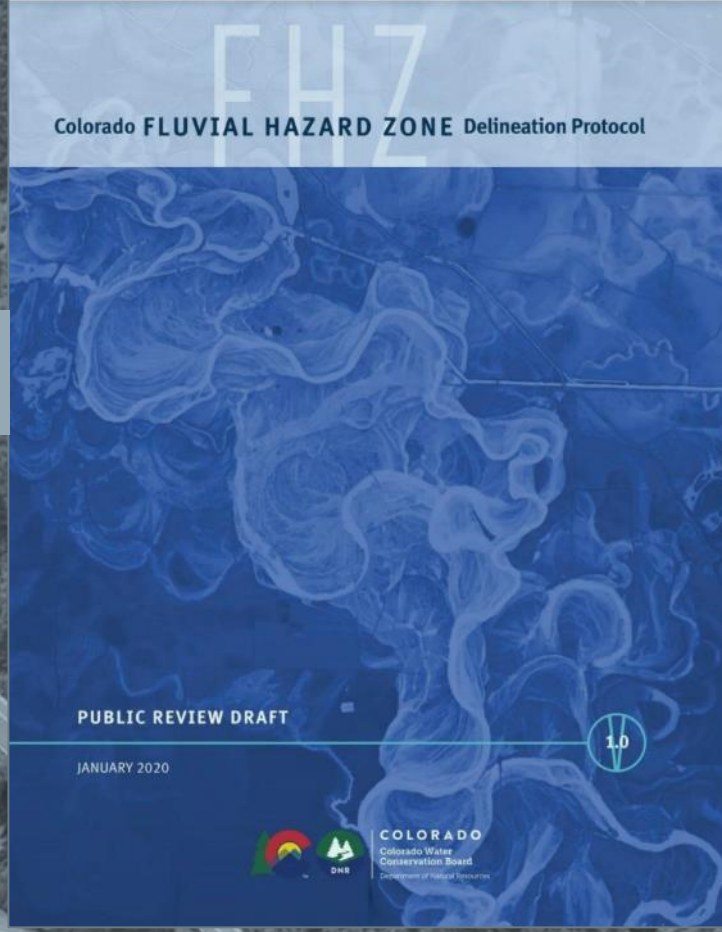
FRAMEWORK

MAJOR ELEMENTS OF THE FRAMEWORK

Hazard Evaluations

Types and Methodologies

Recommended hazard evaluations and their use in determining post-fire susceptibility.

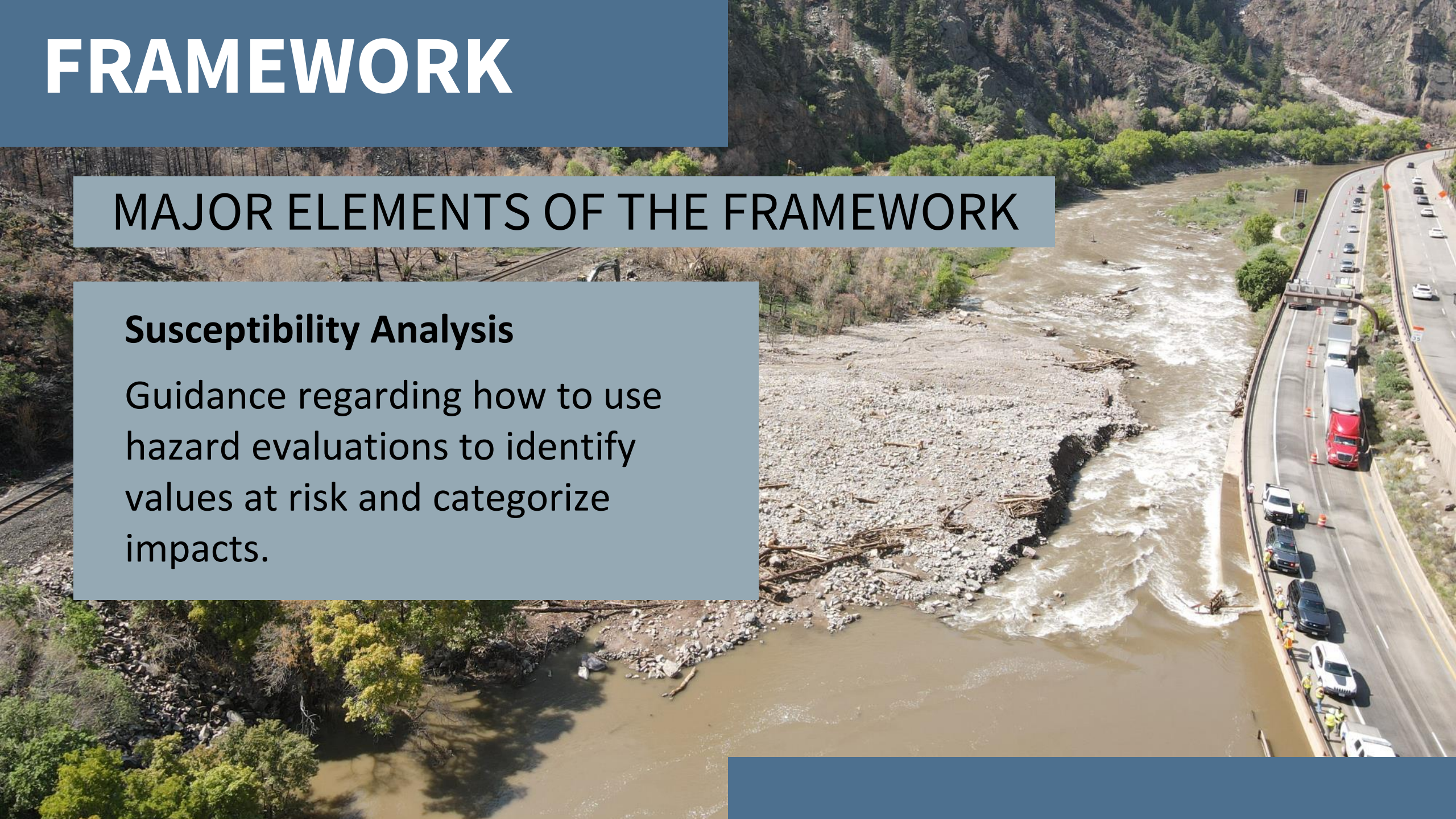


FRAMEWORK

MAJOR ELEMENTS OF THE FRAMEWORK

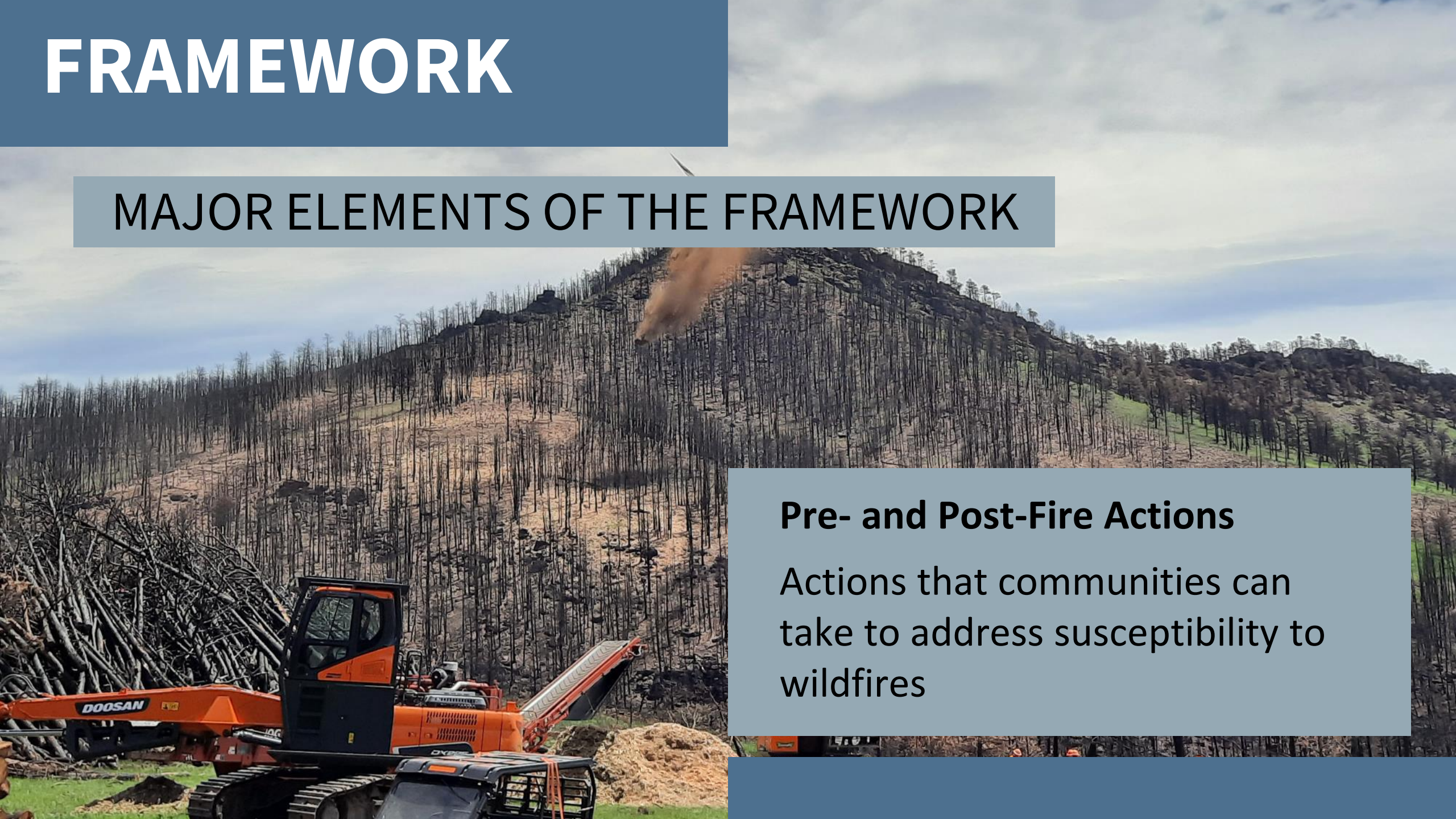
Susceptibility Analysis

Guidance regarding how to use hazard evaluations to identify values at risk and categorize impacts.



FRAMEWORK

MAJOR ELEMENTS OF THE FRAMEWORK



Pre- and Post-Fire Actions

Actions that communities can take to address susceptibility to wildfires

FRAMEWORK

PILOT STUDY

Complete a watershed and landscape level scale susceptibility study on one or two watersheds using the developed framework as an example for local agencies and stakeholders.

THANK YOU

Questions?

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