

WILDFIRE READY WATERSHEDS

STATEWIDE POST-FIRE
SUSCEPTIBILITY



COLORADO

Colorado Water
Conservation Board

Department of Natural Resources



Wildfire Ready Watersheds



Healthy Watersheds:

- Maintain flow regimes at historic conditions
- Are able to resist, absorb, and recover from natural hazards (Resilience)
- Provide high quality water supply for agriculture, municipal, and environment
- Provide diverse and complex habitat features in upland and riverine environments



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.

Legislative directive from SB21-240



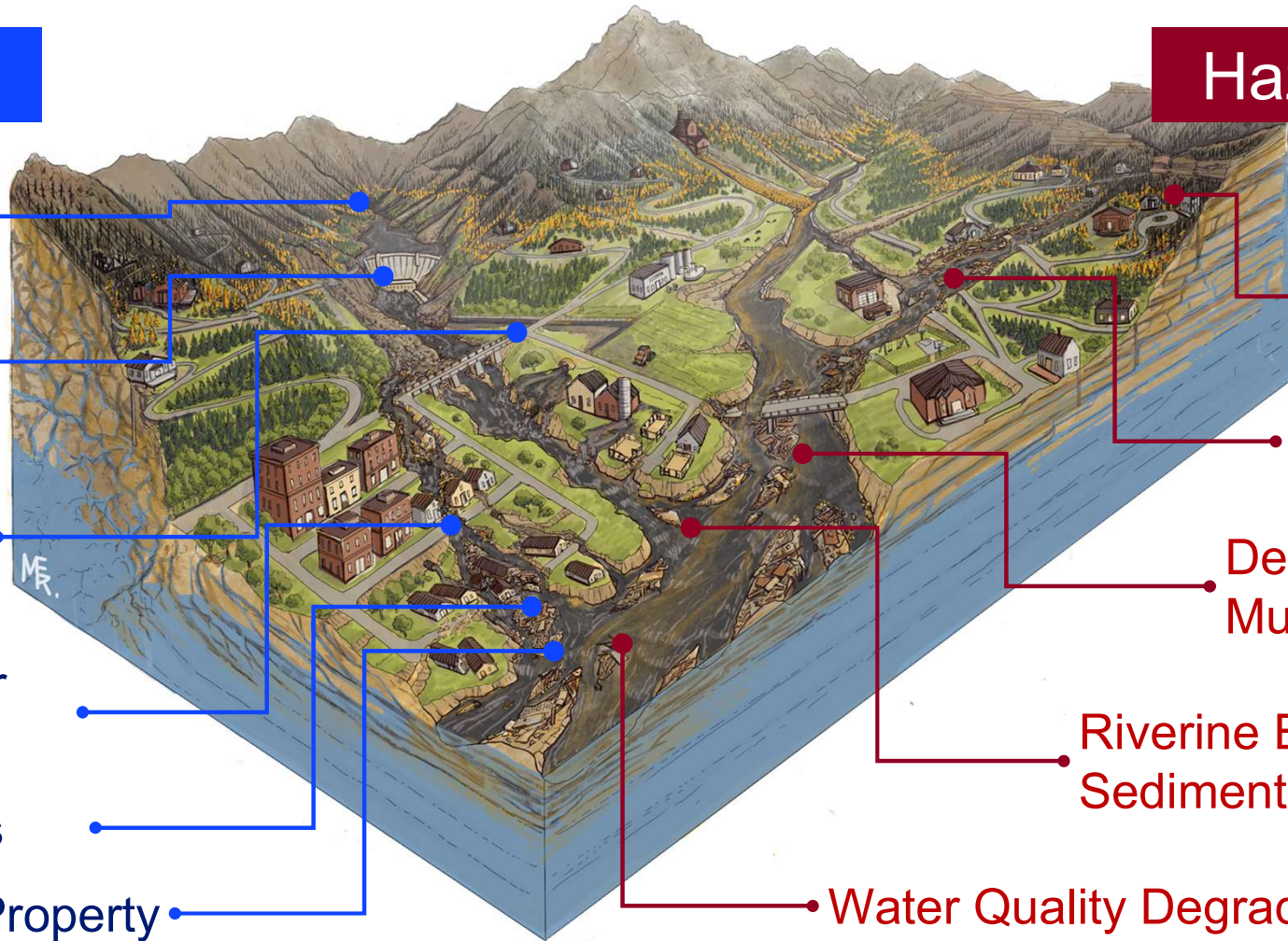
Wildfire Ready Watersheds

Values

- Aquatic Ecosystems
- Reservoirs and Dams
- Agricultural Water Infrastructure
- Municipal Water Intakes
- Road Crossings
- Life and Property

Hazards

- Hillslope Erosion
- Flooding
- Debris and Mud Flows
- Riverine Erosion & Sedimentation
- Water Quality Degradation





Wildfire Ready Watersheds

Post-Fire Risk

Statewide relative risk for all values and post-fire hazards.

Map represents overall average susceptibility.

Wildfire Ready Watersheds Statewide Post-Fire Susceptibility Assessment

Average Susceptibility of
Values-at-Risk to Hazards

Legend

- HUC12 Subwatersheds*
- Major Waterbodies
- Major Rivers
- Basin Roundtable Delineations
- Highways
- Counties

Susceptibility of Values-at-Risk to Hazards

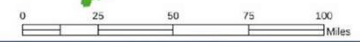
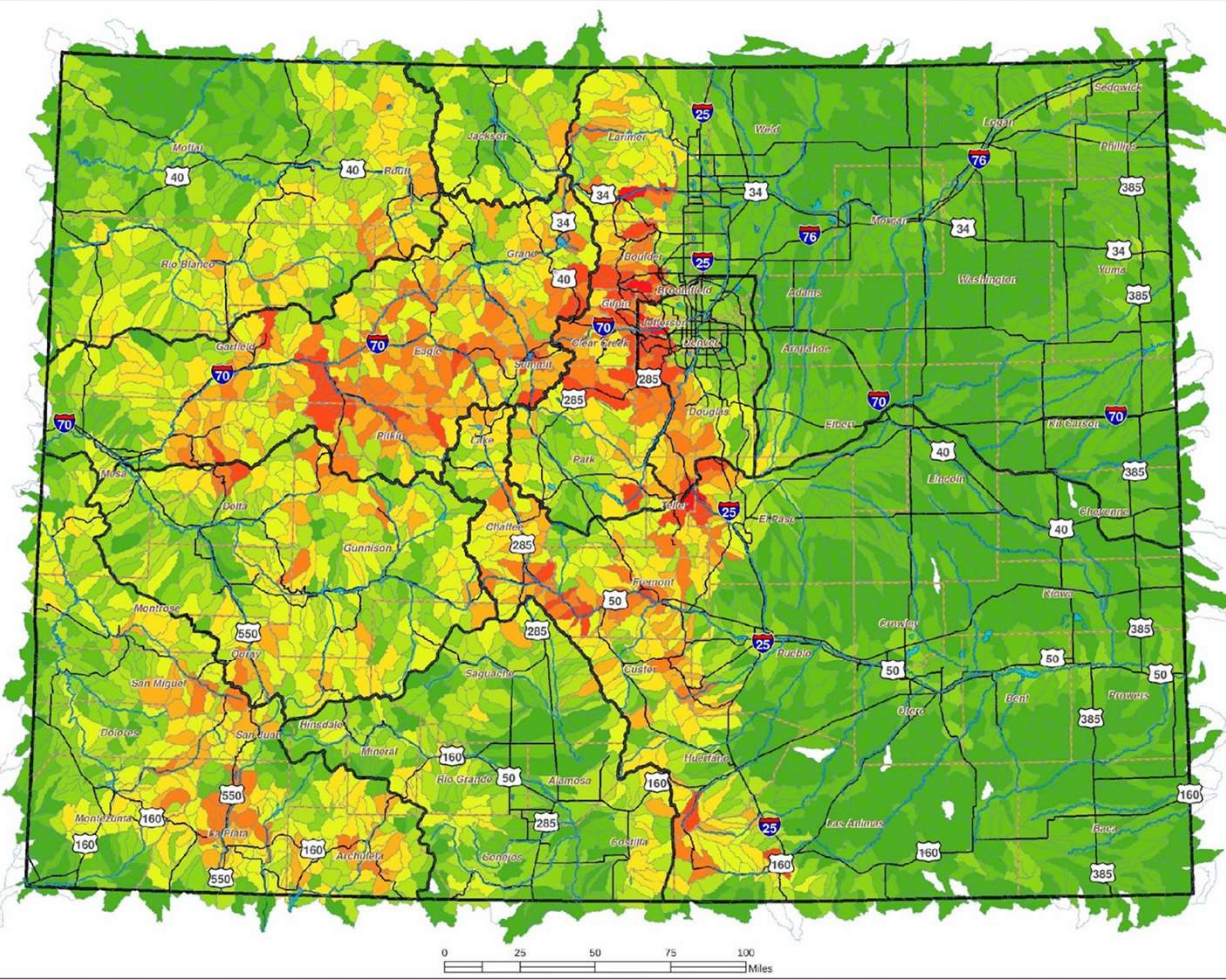
- 1 - 7
- 8 - 13
- 14 - 19
- 20 - 25
- 26 - 31
- 32 - 36
- 37 - 42
- 43 - 48
- 49 - 54
- 55 - 60

Numeric values above represent progressively increasing relative (within the watershed compared to) susceptibility of values-at-risk to post-fire hazards. The values shown represent the average of all analyzed values each calculated on a per-HUC12 basis. Basins with no recorded risk are shown as blank space. The maximum possible value of 100 would represent the highest presence of values-at-risk and the highest likelihood of post-fire hazard occurrence.

*HUCs are color coded by watershed assessment of total post-fire hazard risk against Values-at-Risk (VARs).

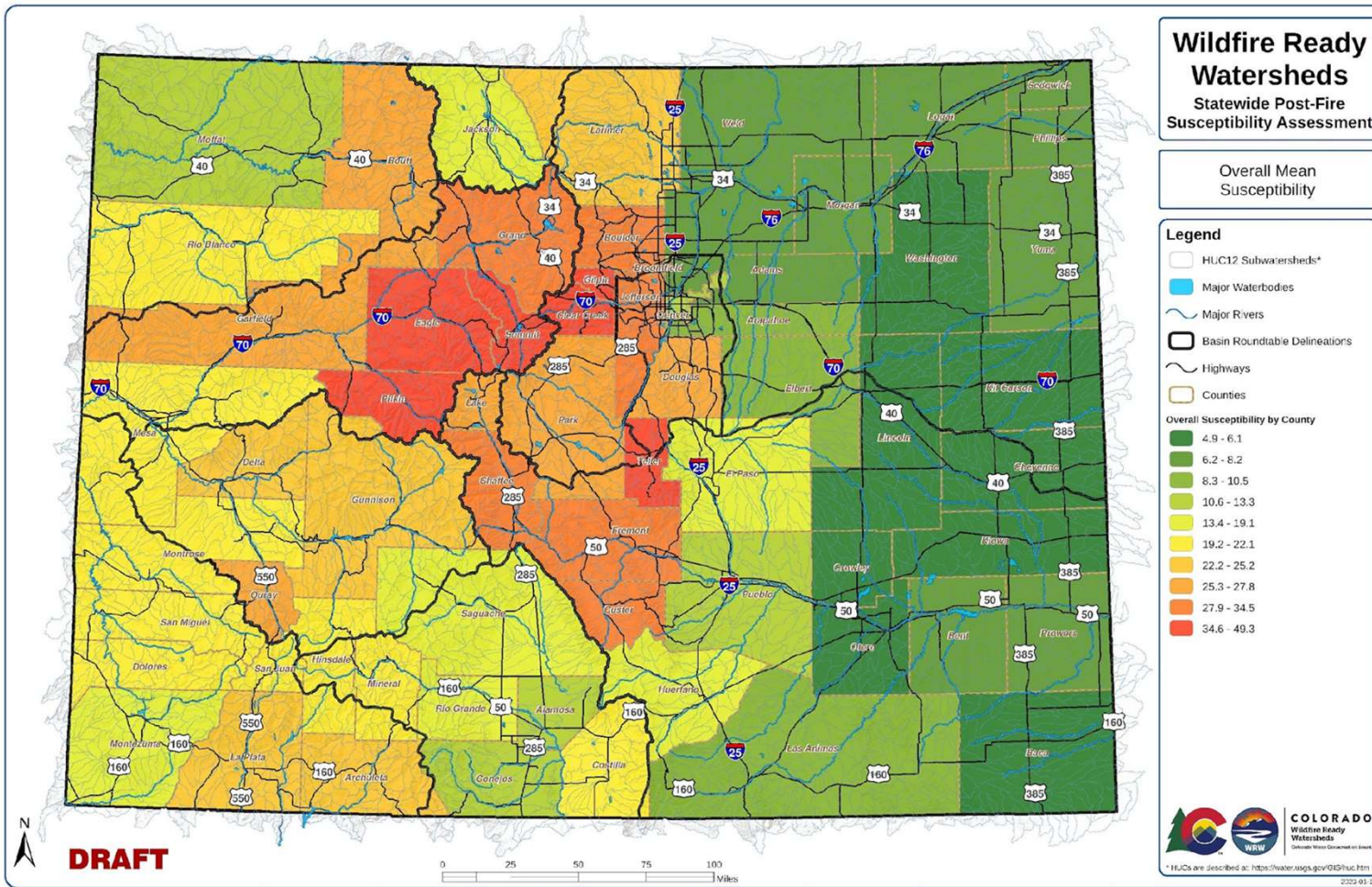


*HUCs are color coded at: <https://water.cdn.gov/CDWR/home>
2022.12.08





Wildfire Ready Watersheds



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Wildfire Ready Watersheds



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Statewide Post-Fire Susceptibility Explorer

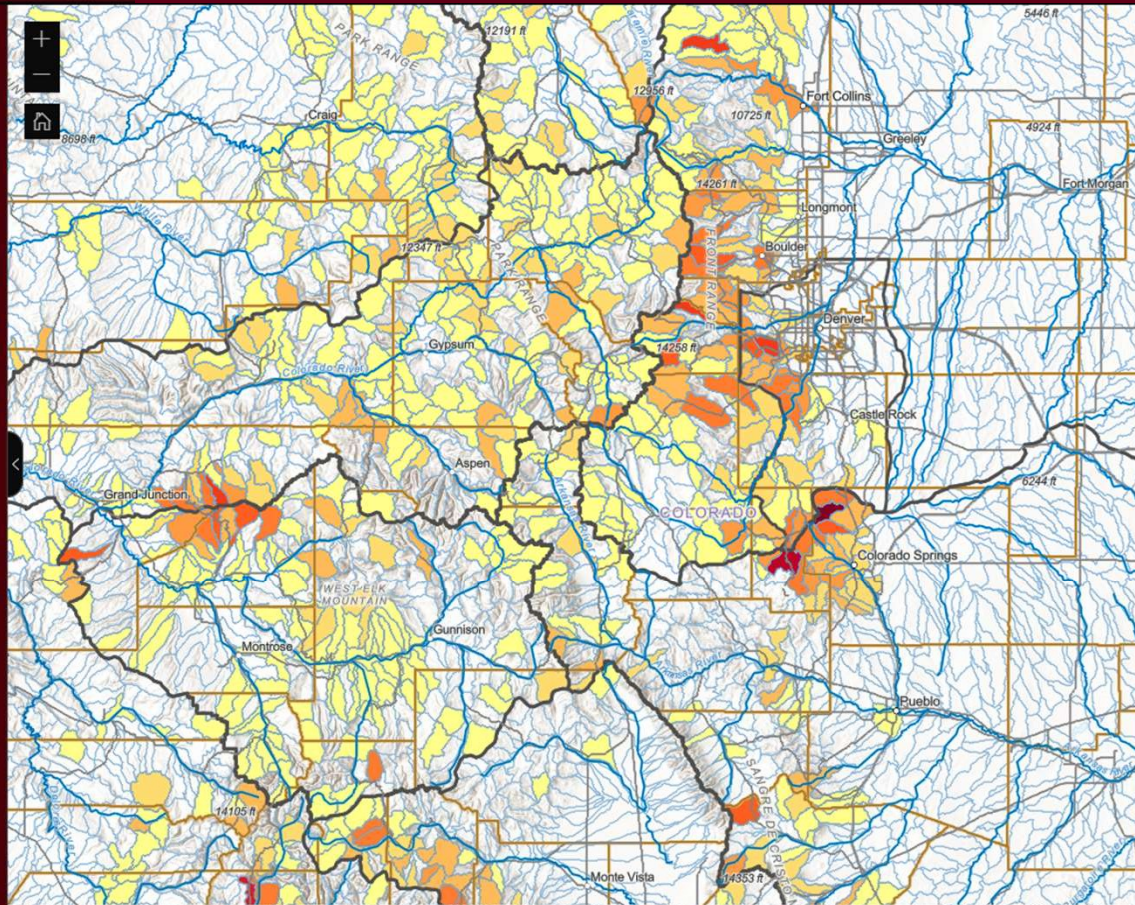
Explore Your Susceptibility

The Wildfire Ready Watersheds (WRW) program seeks to assess the susceptibility of Colorado's watersheds to post-fire hazard risk in order to support development of pre-fire and post-fire mitigation plans, preparing communities and stakeholders for these impacts - before fires occur.

This web map provides an overview of the susceptibility mapping and associated analyses and evaluations performed to assess statewide susceptibility to post-fire hazards at a watershed (HUC-12) scale. This analysis was completed in three steps.

- 1. Values-at-Risk (VAR) Identification.** This work curated available asset data classes at a statewide level and summarizes the relative presence of assets within any given HUC-12 watershed.
- 2. Hazard Analysis.** Hazard analyses were collected or performed at a watershed scale for hydrologic change, post-fire flooding, sediment/hillslope erosion, and debris flow probability.
- 3. Risk Assessment.** The risk assessment represents the intersection of VARs with hazards (risk = probability x consequence).

[Learn More](#)



- Reference Features
- Top Level Summaries - Values-at-Risk and Hazards
- Reservoirs
 - Reservoirs Susceptible to Hydrologic Change
 - Reservoirs Susceptible to Sedimentation
- Reservoirs Susceptible to Debris Flows**
 - Built Flowlines (Ditches, Canals, and Pipelines)
 - Decreed Features (Ditches, Ditch Systems, Pipeline, and Pump Points)
 - Intake Watersheds (Sourcewater Assessment Areas)
 - Aquatic Resources
 - Roads Crossings (Intersections with Natural Flowlines)
- Reference Features
- Selected Rivers
- CDOT Highways (State, US, and Interstate)
- IBCC Basins
- Counties

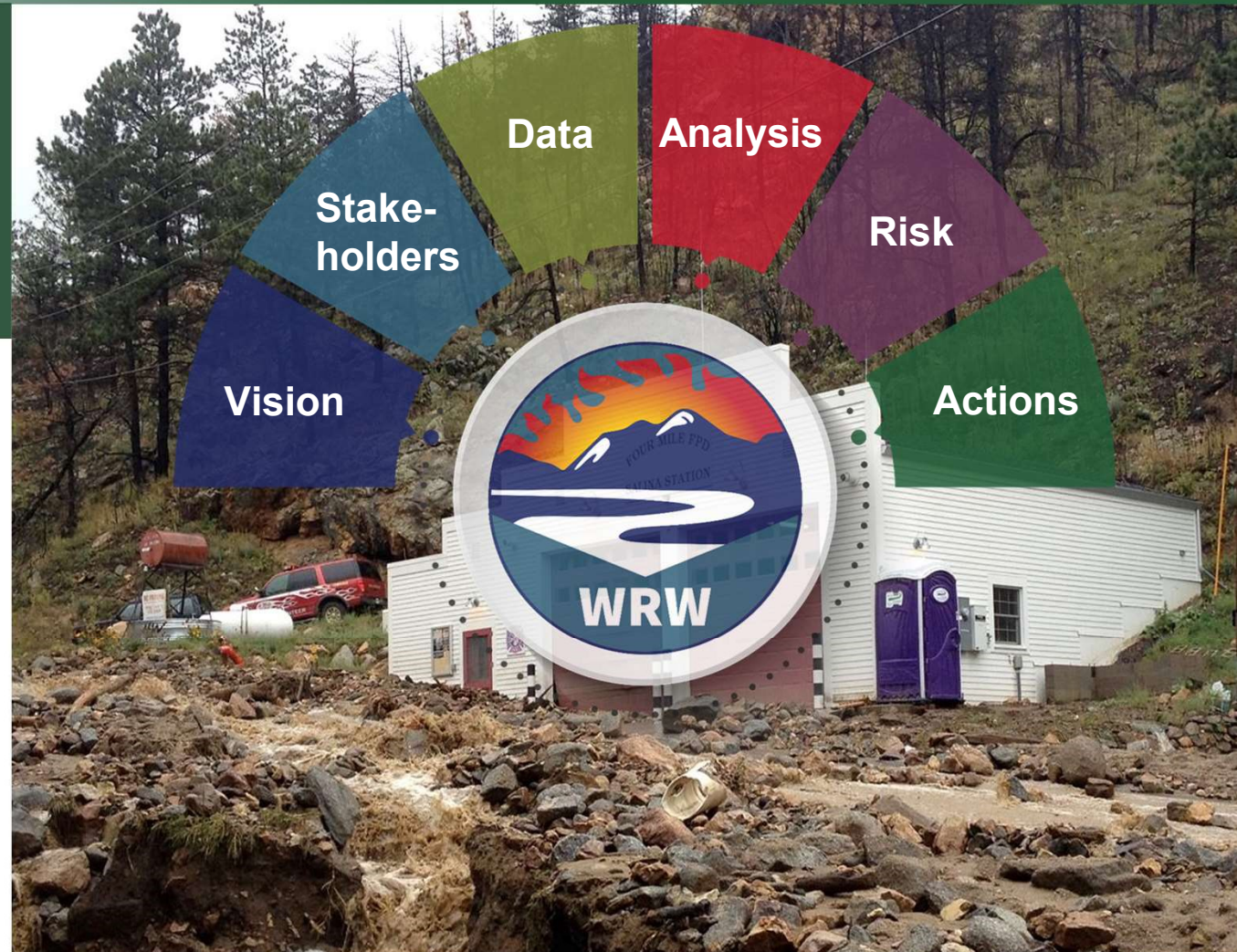


Wildfire Ready Watersheds

Wildfire Ready Action Plan (WRAP)

A comprehensive template scope of work that details necessary tasks.

- Goals and Objectives
- Stakeholder Collaboration & Outreach
- Data Collection, Gap Analysis, & Development
- Post-wildfire Hazard Analysis
- Susceptibility Analysis to evaluate risk
- **Pre and Post-wildfire mitigation activities**

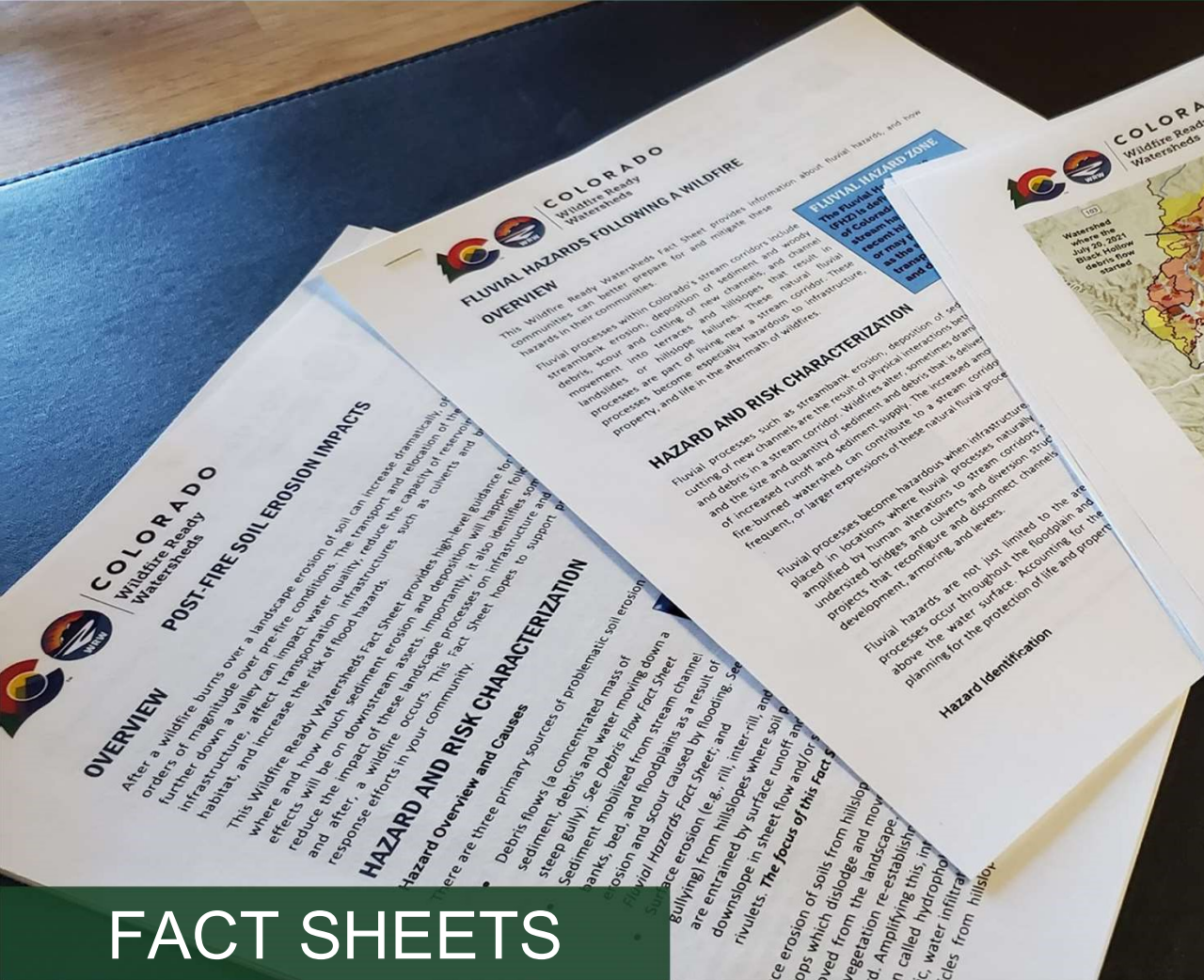




Wildfire Ready Watersheds

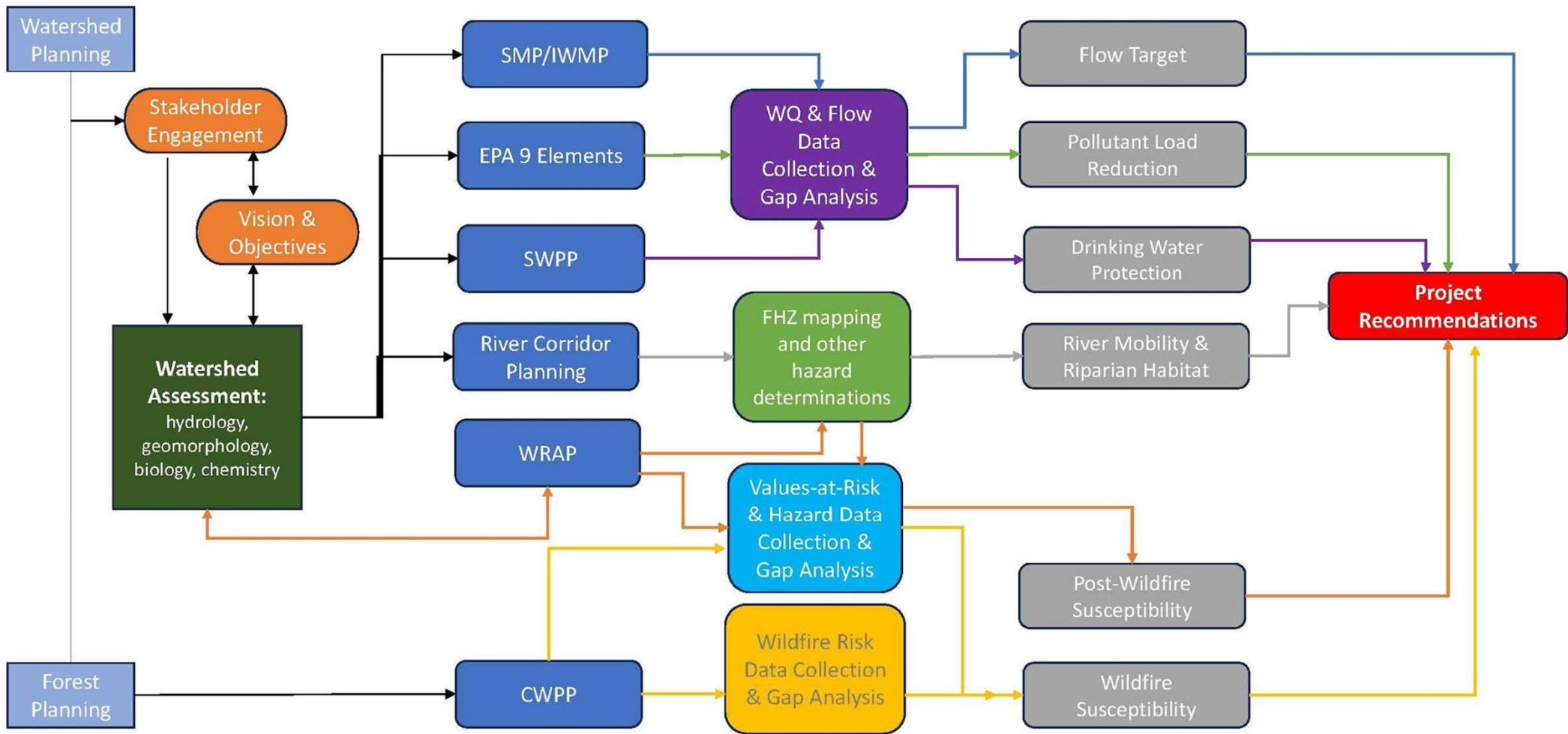
- WRAP Quick Start Guide
- Hydrology / Hydraulics
- Debris / Mud Flow
- Fluvial Hazard Zone
- GIS Preparedness
- Outreach / Communication
- Hillslope Erosion
- Water Quality
- Water Infrastructure

FACT SHEETS



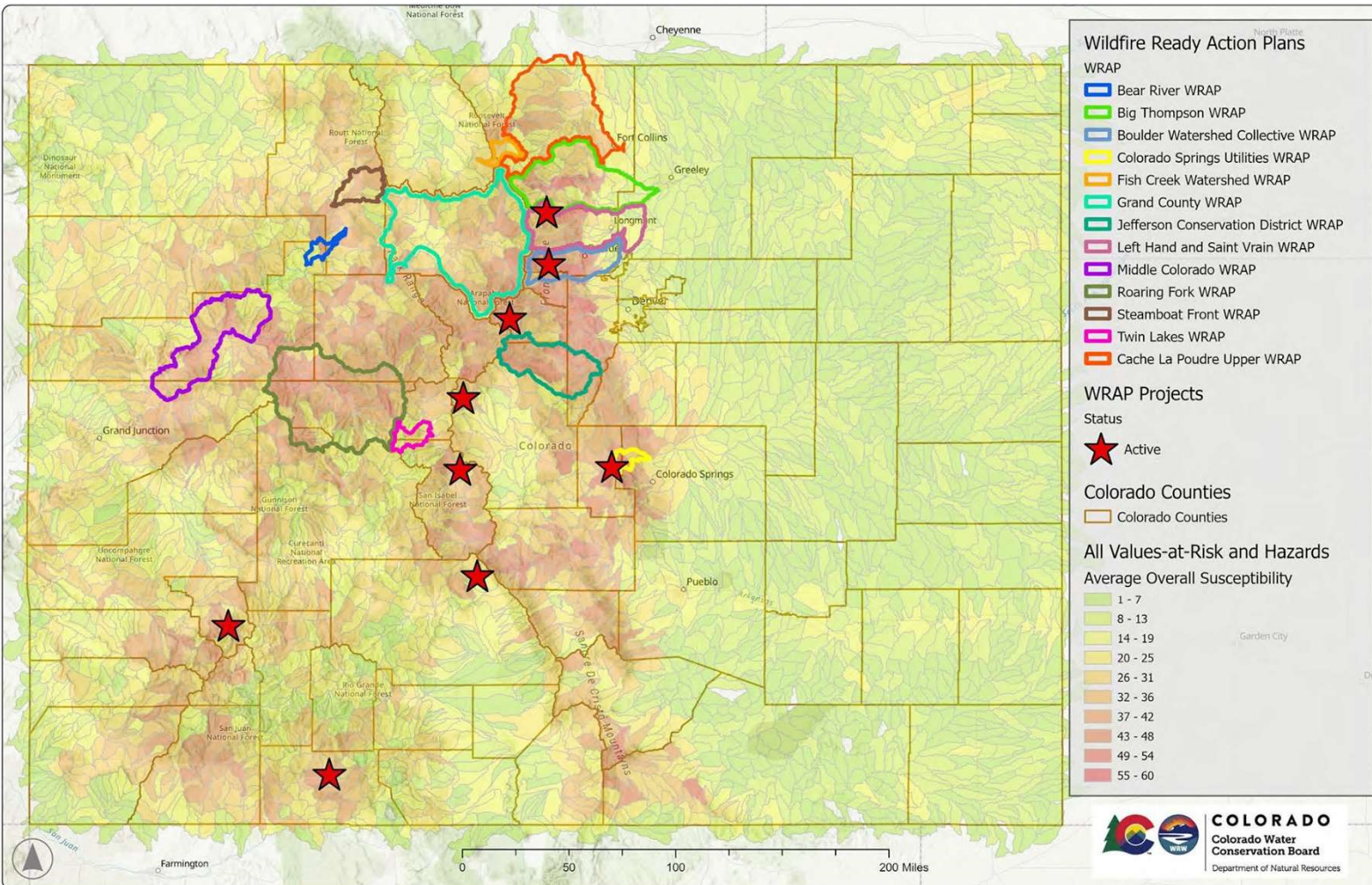
Watershed Planning DRAFT

SMP – Stream Management Plan
 IWMP – Integrated Water Management Plan
 SWPP – Source Water Protection Plan
 WRAP – Wildfire Ready Action Plan
 CWPP – Community Wildfire Protection Plan
 WQ – Water Quality
 FHZ – Fluvial Hazard Zone





Wildfire Ready Watersheds



Wildfire Ready Watershed Plans (WRAP)
WRAP Plans Approved = 13
WRAP Under Review = 3
WRAP Pending = 12

Projects Approved = 9
Projects Under Review = 3

Funding Approved = \$6.8 million

Total Approved and Under Review = \$9 million

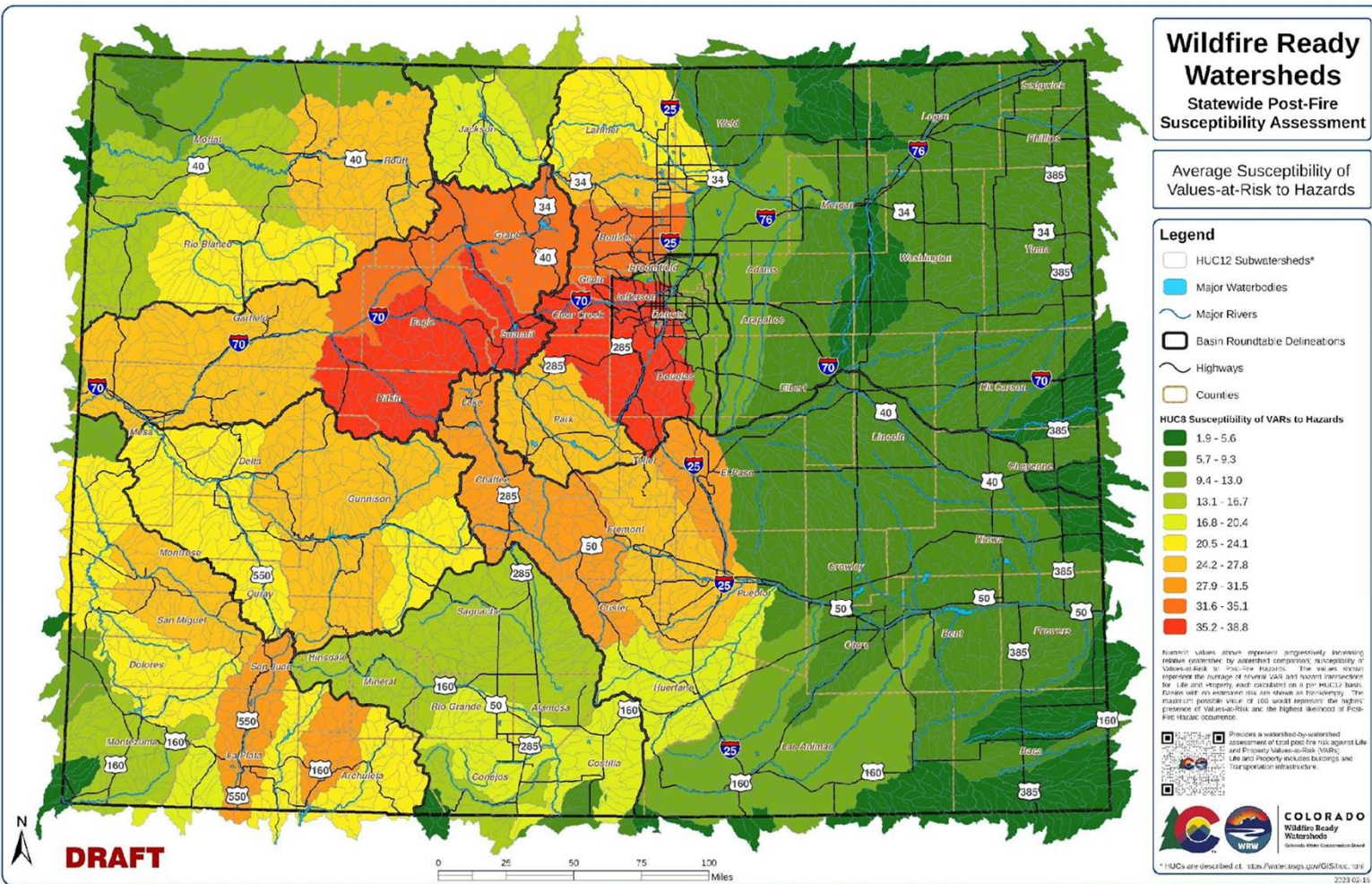


Wildfire Ready Watersheds

Post-Fire Risk

Statewide relative risk for all values and post-fire hazards.

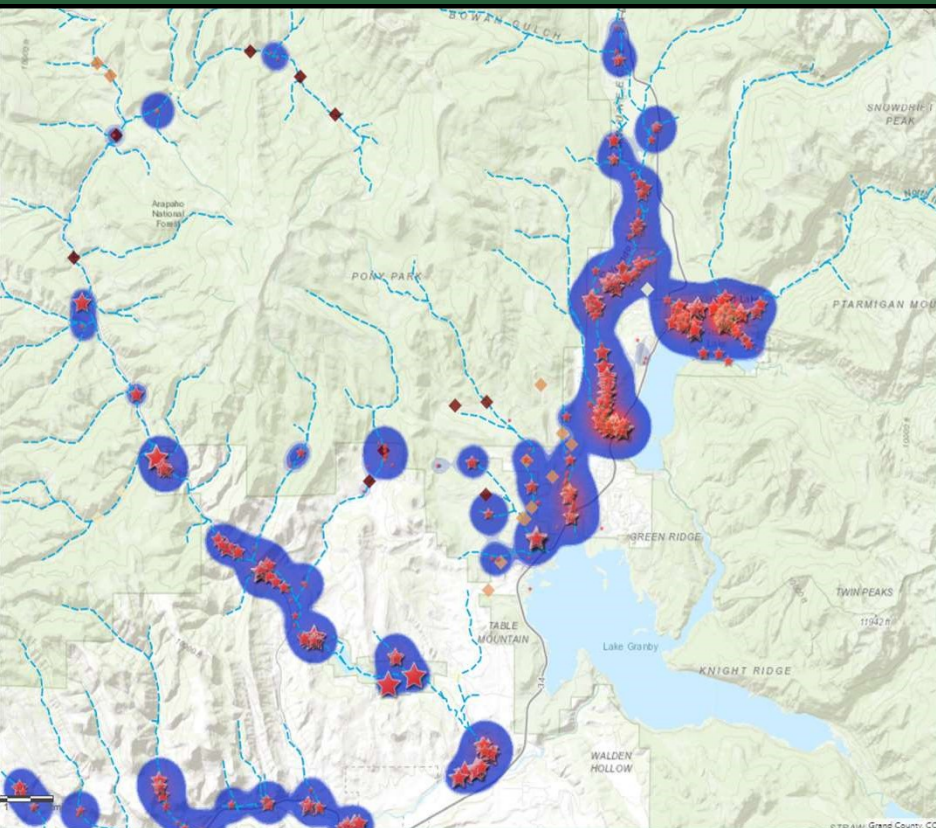
Map represents overall average susceptibility.





Wildfire Ready Watersheds

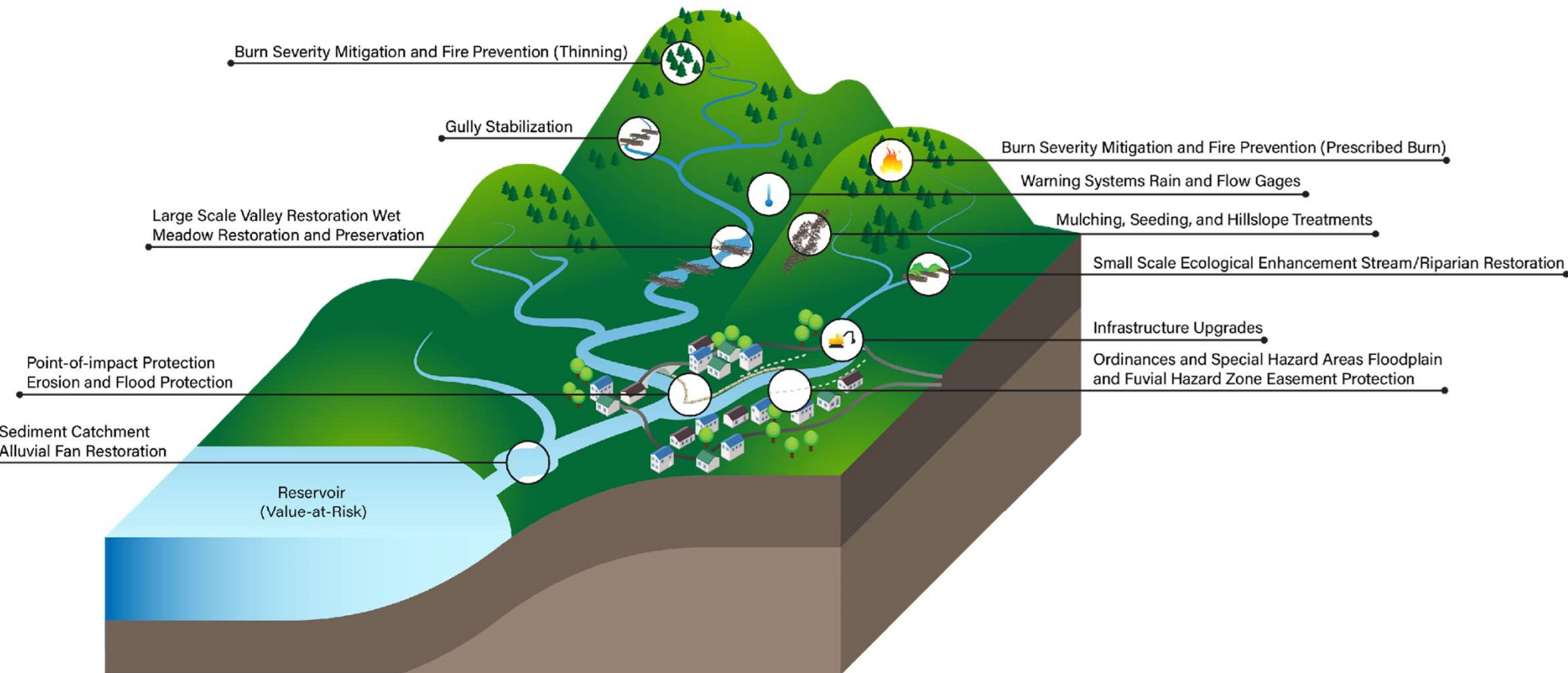
Are values at risk within and near the burn scar susceptible to post-wildfire hazards?



East Troublesome Fire 192,560 acres.
Fall 2020



Wildfire Ready Watersheds





Wildfire Ready Watersheds

Protect and Restore Natural Infrastructure





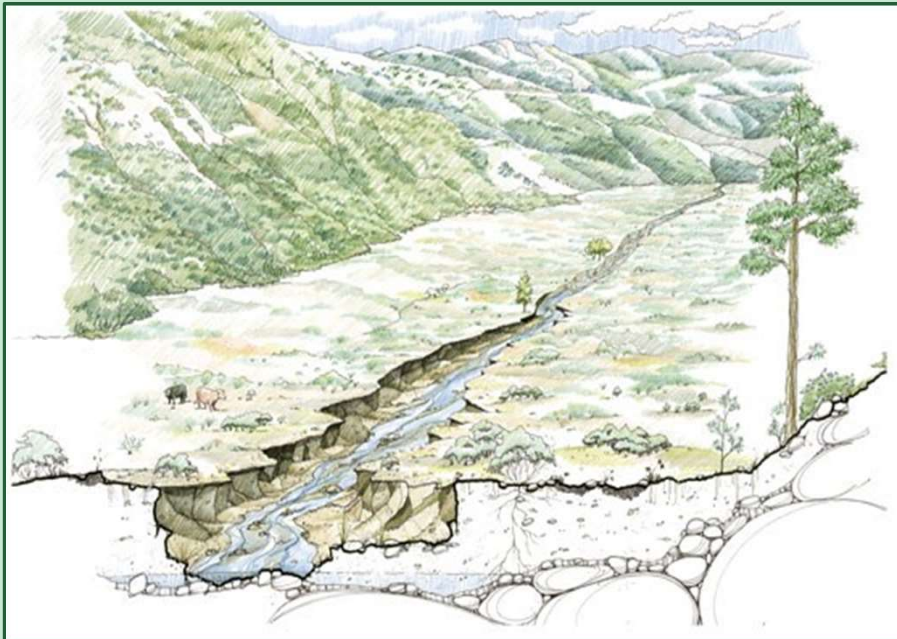
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Protect and Enhance Built Infrastructure





Wildfire Ready Watersheds



Images from National Park Service

[Nps.gov/yose/learn/nature/meadow-health.htm](https://www.nps.gov/yose/learn/nature/meadow-health.htm)



Wildfire Ready Watersheds

Website

www.wildfirereadywatersheds.com



Questions?

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Working to understand the susceptibility of Colorado's watersheds to post-wildfire impacts and to plan and prepare for them— ***before fires occur.***