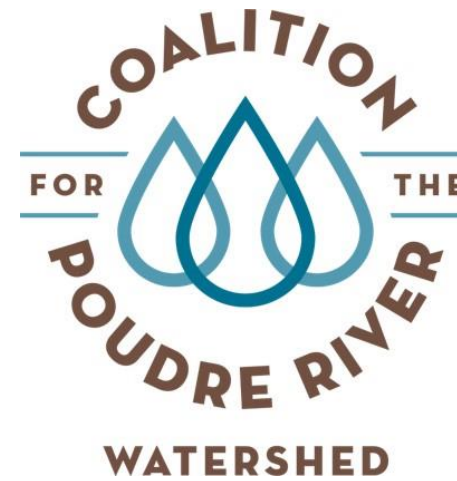


# Watersheds, Wildfires and Collaboration

Glacier View Ecology Club  
September 11, 2018

Weston Toll  
Watershed Coordinator



# High Park Fire, 2012

- ~87,000 acres
- Mixed severity
  - 41,000 acres were high to moderately burned
- CPRW initially formed as the High Park Restoration Coalition
- Community response
  - Informal group of over 20 entities
  - Formalized in May 2013
  - 501©3 status
- Now tackling the issue of what to do pre-fire to help communities, infrastructure and the ecosystem

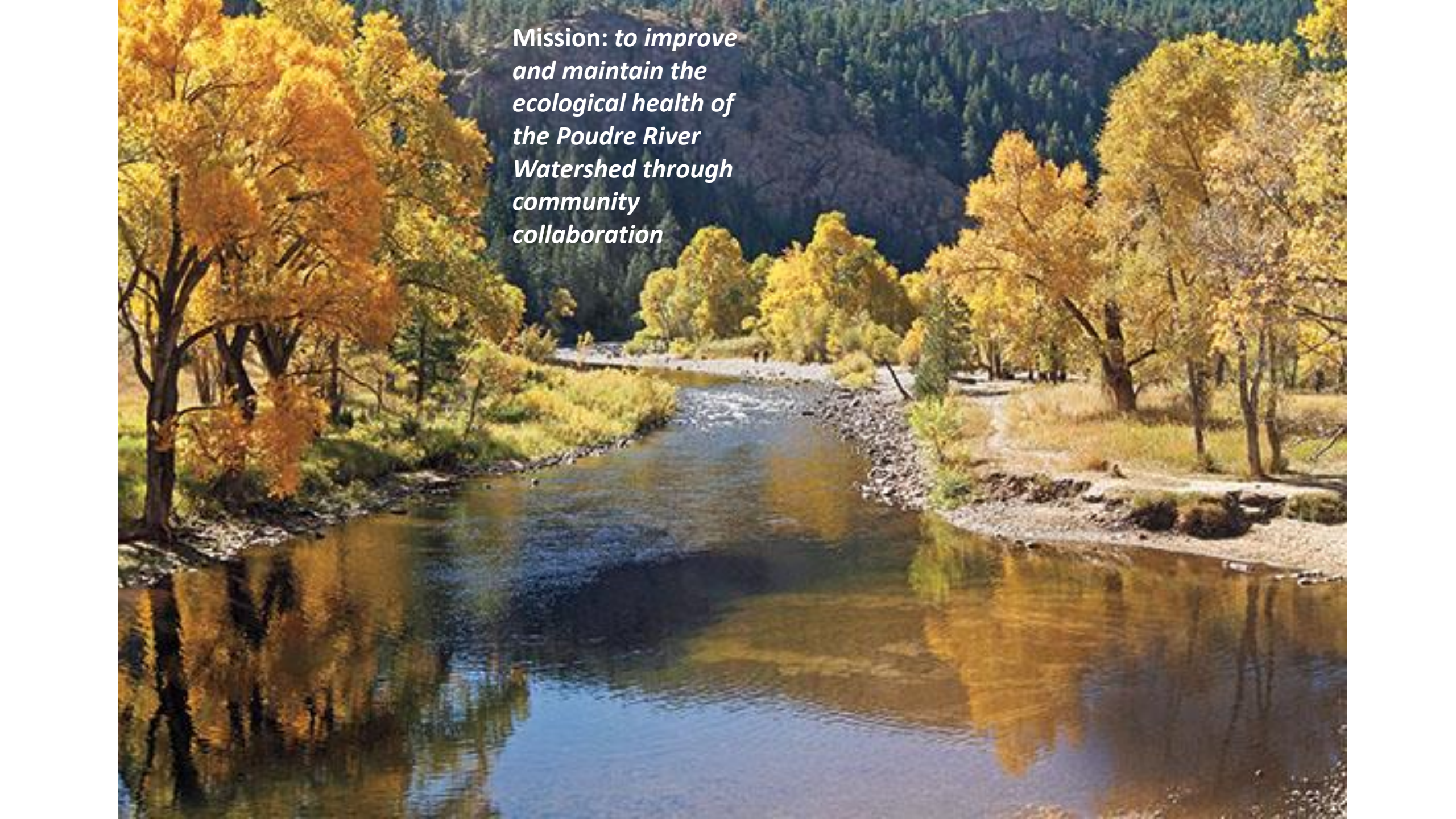


CBS news, 2012



Denver Post July, 2012

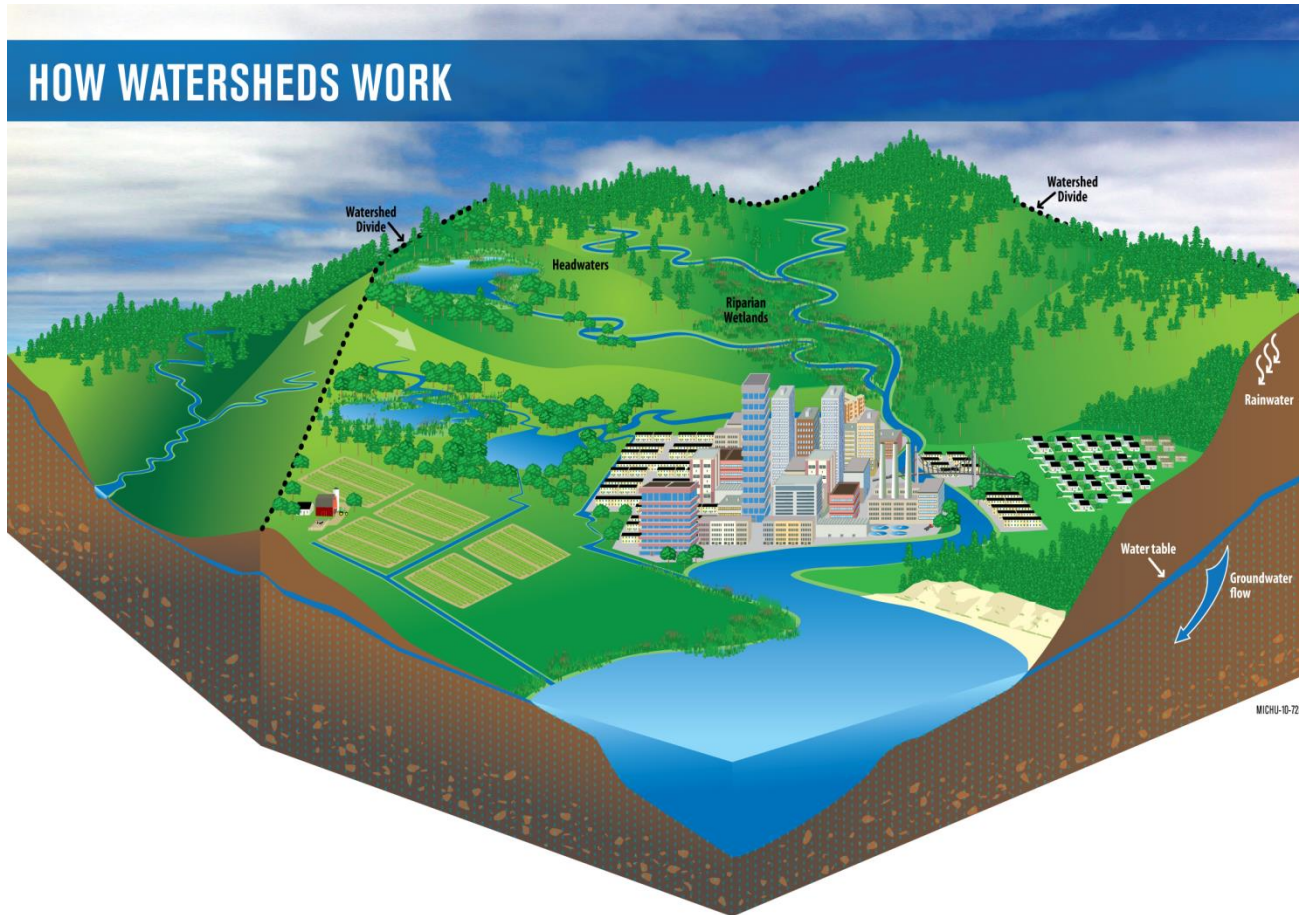




*Mission: to improve  
and maintain the  
ecological health of  
the Poudre River  
Watershed through  
community  
collaboration*



# What is a watershed?



- “An area or ridge of land that separates waters flowing to different rivers, basins, or seas”
- Forest/soil component is enormously important to overall watershed health
- One of the biggest threats to forests, soils and the Poudre Watershed is large, catastrophic wildfires

# How did we get here?

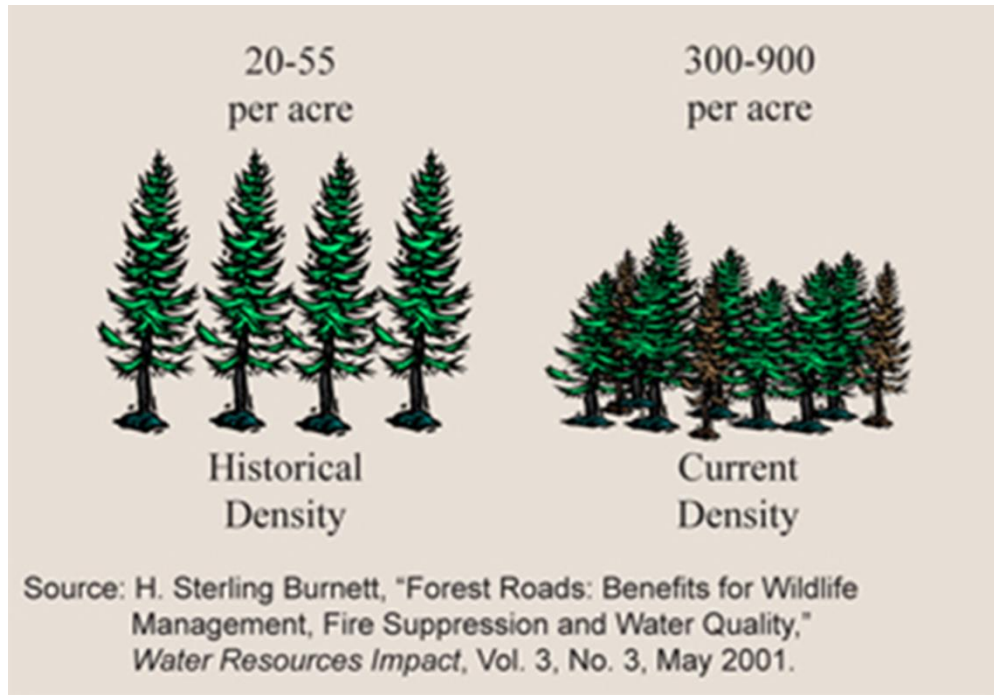
- Much of the watershed evolved with fire
  - Frequent, low to moderate severity fire in the Ponderosa/mixed conifer forest type
- Over a century of fire suppression has created a thick and unhealthy situation in many of our forests



US Forest Service



# Ponderosa pine and fire



- Fire return interval 5 -25 years with mixed severity (low to moderate, some high intensity)
- Generally the fire would stay on the ground
- Forests were dominated by older trees with protective thick outer bark
- Open crown structure
- Self pruning
- Ponderosa pine forests need fire to kill seedlings of more shade-tolerant species (i.e.-Douglas fir and Lodgepole pine)
- This creates a more diverse mosaic of habitats & forest structure



Thick, unhealthy forest that is susceptible to disease, insects and catastrophic wildfire



Open, resilient stand that is ready to receive low severity fire, provide habitat for animals and prevent disease/insect outbreaks

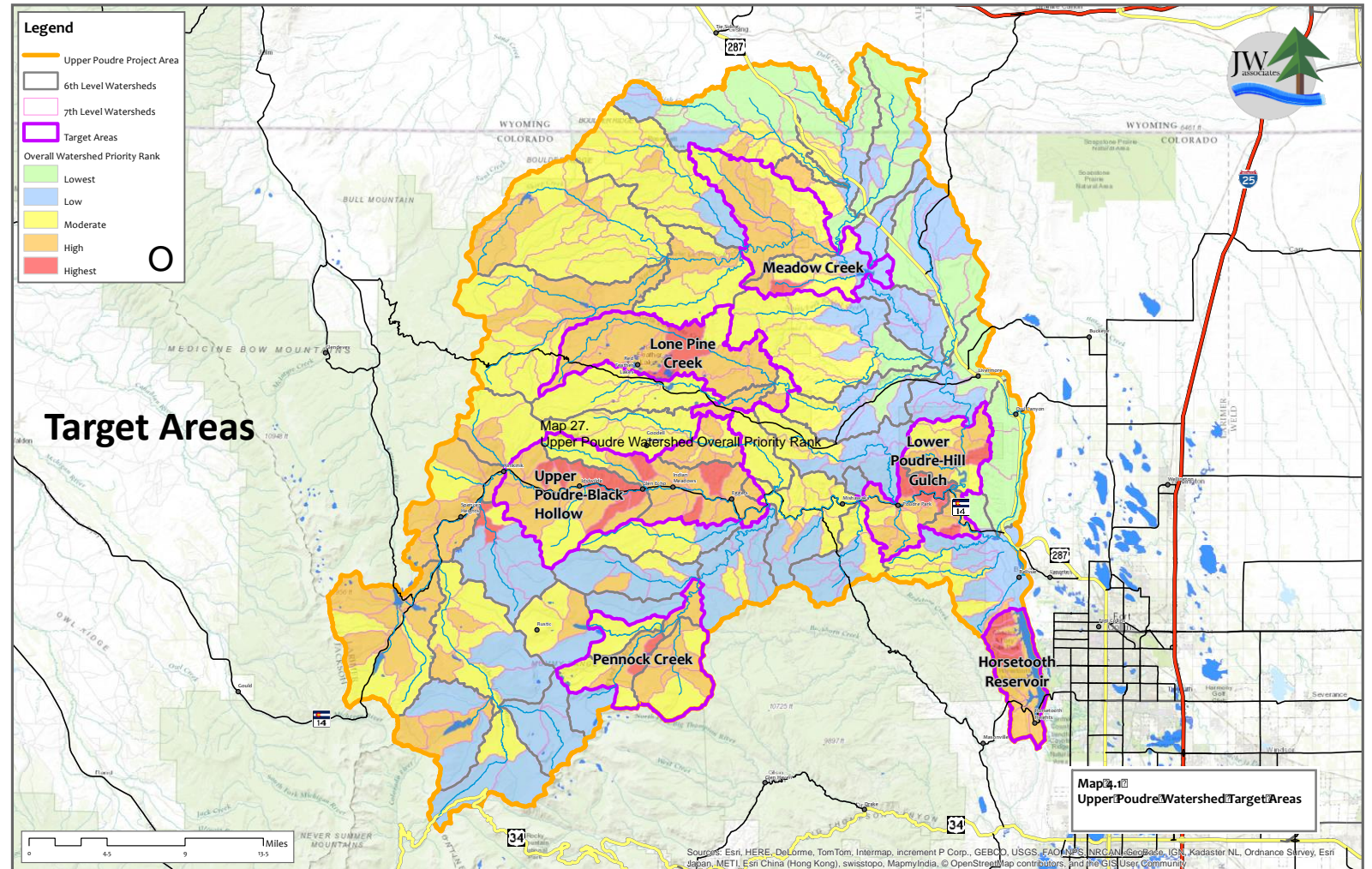
# So how do we get back to historical conditions?

- Goals of our forest restoration and hazardous fuels reduction work:
  1. Restore fire regime to low to mixed severity
  2. Improve forest health and structural diversity
  3. Protect water quality
  4. Build skills, capacity and understanding
- Barriers:
  - Funding
  - Willing landowners
  - Operable terrain
  - Perception of fire



# Upper Poudre Watershed Resilience Plan

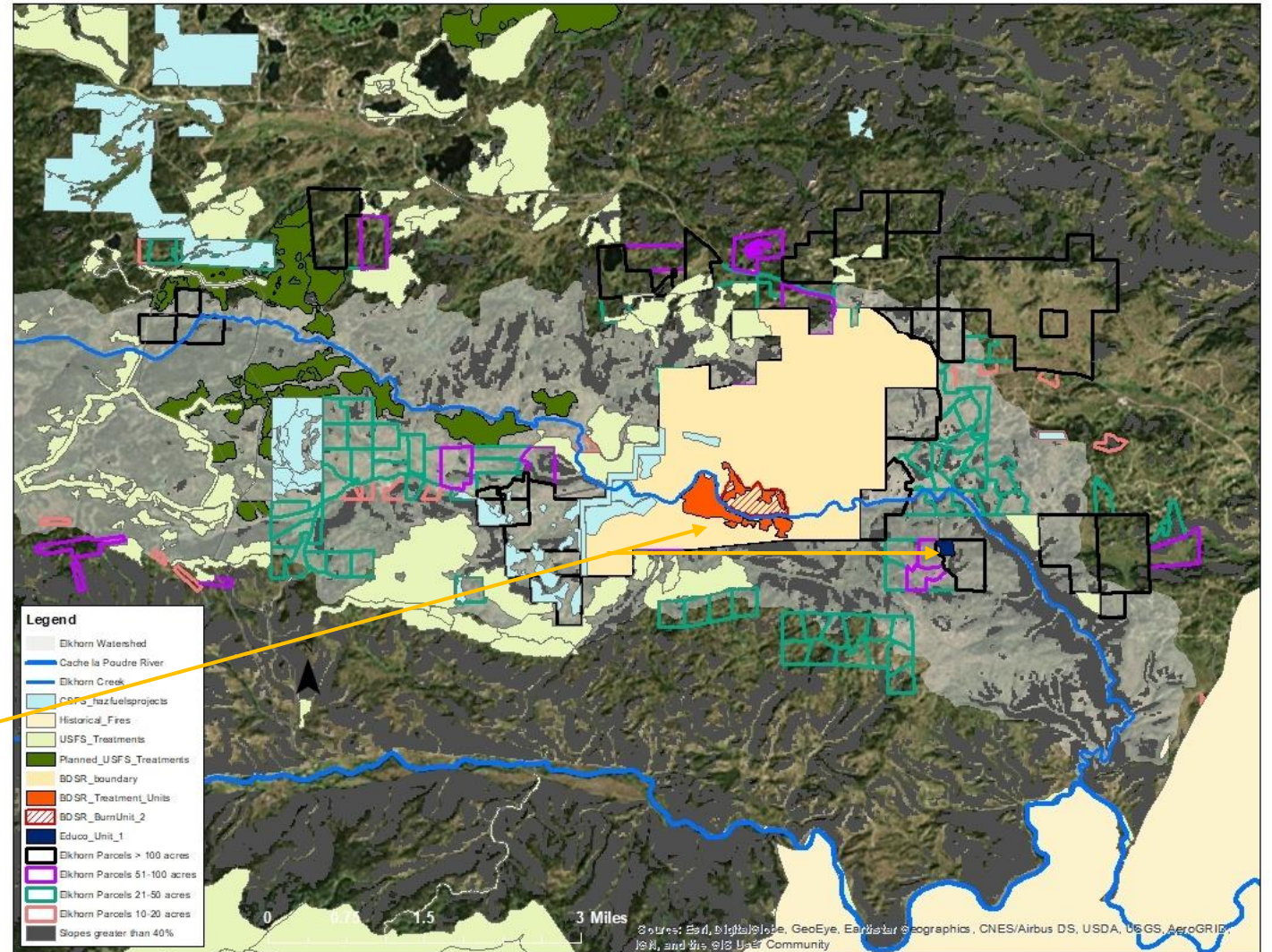
- Stakeholder driven
- Spatial analysis
- Prioritizes hazards (wildfires) to critical watershed values (healthy forests, rivers, water supply, etc)
- Helps to ID areas in which to focus forest restoration work





# The challenge ahead

- 600,000+ acres in the upper watershed
- Majority managed by US Forest Service
- Resilience plan helps narrow down to ~40,000 acres that need treatment the most
- Trying to get to landscape scale treatments





# How do we get to landscape scale treatments?

- Lots of tools in the tool box
  - Prescribed fire
    - Pros: Low cost per acre, natural way of restoring the forest, nutrient cycling
    - Cons: Risk, weather factors, capacity



The Nature Conservancy



# How do we get to landscape scale treatments?



## ○ Mechanical treatment

- Pros: Efficient, able to utilize timber in wood product, whole tree removal, low amount of fuels left on the forest floor
- Cons: Expensive, no slopes  $>40\%$ , can disturb the soil



# How do we get to landscape scale treatments?



- Hand thinning
  - Pros: Can be relatively inexpensive, lighter hand on the land
  - Cons: More fuels left on forest floor, more time consuming, have to chip or burn the limbs

# Burning without borders

- Fire doesn't recognize boundaries
- USFS wants to collaborate with other organizations and the community
  - Helps to share the risk
  - Goes back to larger treatment areas, with a smaller price tag
- CPRW is looking for opportunities to reimburse local fire departments for participation on prescribed fires





# Putting the plan into action!



- Already implementing resiliency projects based on prioritization (Elkhorn Creek and Horsetooth)
  - Ben Delatour
  - Horsetooth
  - Educo
  - Other projects on North Rim Road

# Ben Delatour Scout Ranch

- Capacity Building
  - ~30 volunteer sawyers
  - 20 youth sawyers
- Forest Treatments
  - 300+ acres of forest restored
  - 156 acre prescribed fire implemented in September 2017
- Continuing to build on success
  - ~100 acres in the pipeline
  - More trainings





# Scout Ranch Treatments



Pre-treatment



Post-treatment



# Scout Ranch Treatments



September 22, 2017 prescribed fire...a collaborative success!



# Educo Treatment



Pre-Treatment



Post-Treatment

# We can't do it alone!

- Partners (Elkhorn Creek Forest Health Initiative)

- The Nature Conservancy
- Boy Scouts of America
- Larimer County Conservation Corps
- Wildlands Restoration Volunteers

- Funders

- Patagonia
- New Belgium Brewing
- Anheuser-Busch
- Great Outdoors Colorado
- Colorado State Forest Service
- CO Department of Natural Resources
- Colorado Conservation Exchange



# How can you become involved?

- Newsletter
- CPRW coming to community/local meetings
- Community based tours
- Site visits to properties
- Email/call me

# Thank you!

Weston Toll

Watershed/Forestry Coordinator

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Watershed

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