

Refreshing Colorado Fuels

Rich Homann
David Buckley



An Overview of the Colorado
Fuels Updating Project

CO-FPS Stakeholder Meeting
August 1, 2017

Background

- ❖ West Wide Wildfire Risk Assessment
- ❖ Colorado Wildfire Risk Assessment
- ❖ CO-WRA
- ❖ CO-WRAP



Team Members

- ❖ Boyd Lebeda, CSFS
- ❖ Rod Moraga, Anchor Point Group
- ❖ Dr. Joaquin Ramirez, Technosylva
- ❖ David Buckley, Technosylva
- ❖ Rich Homann, CSFS
- ❖ Several federal agency reviewers



COLORADO WILDFIRE

RISK ASSESSMENT PORTAL

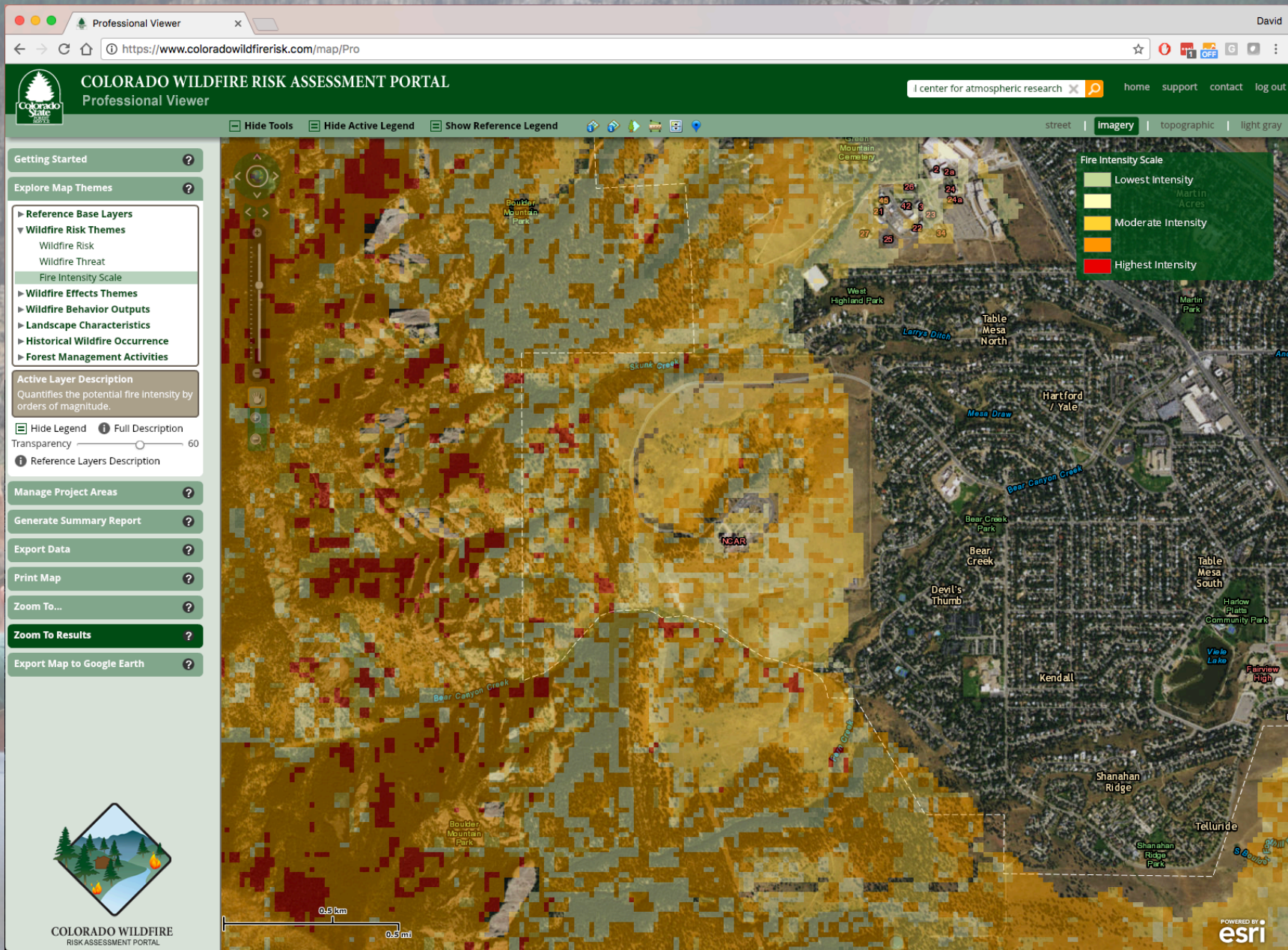
Explore. Identify. Engage.

Are You At Risk?

Wildland fires continue to threaten people and property across Colorado. Continued population growth into wildland-urban interface areas and an increasing frequency of elevated fire weather conditions present major challenges to Colorado residents. Heightened awareness of wildfire risk, prevention and mitigation are becoming increasingly important to ensure safety. The Colorado Wildfire Risk Assessment Portal provides access to information that describes wildland fire risk statewide.

[LEARN MORE](#)





Objectives

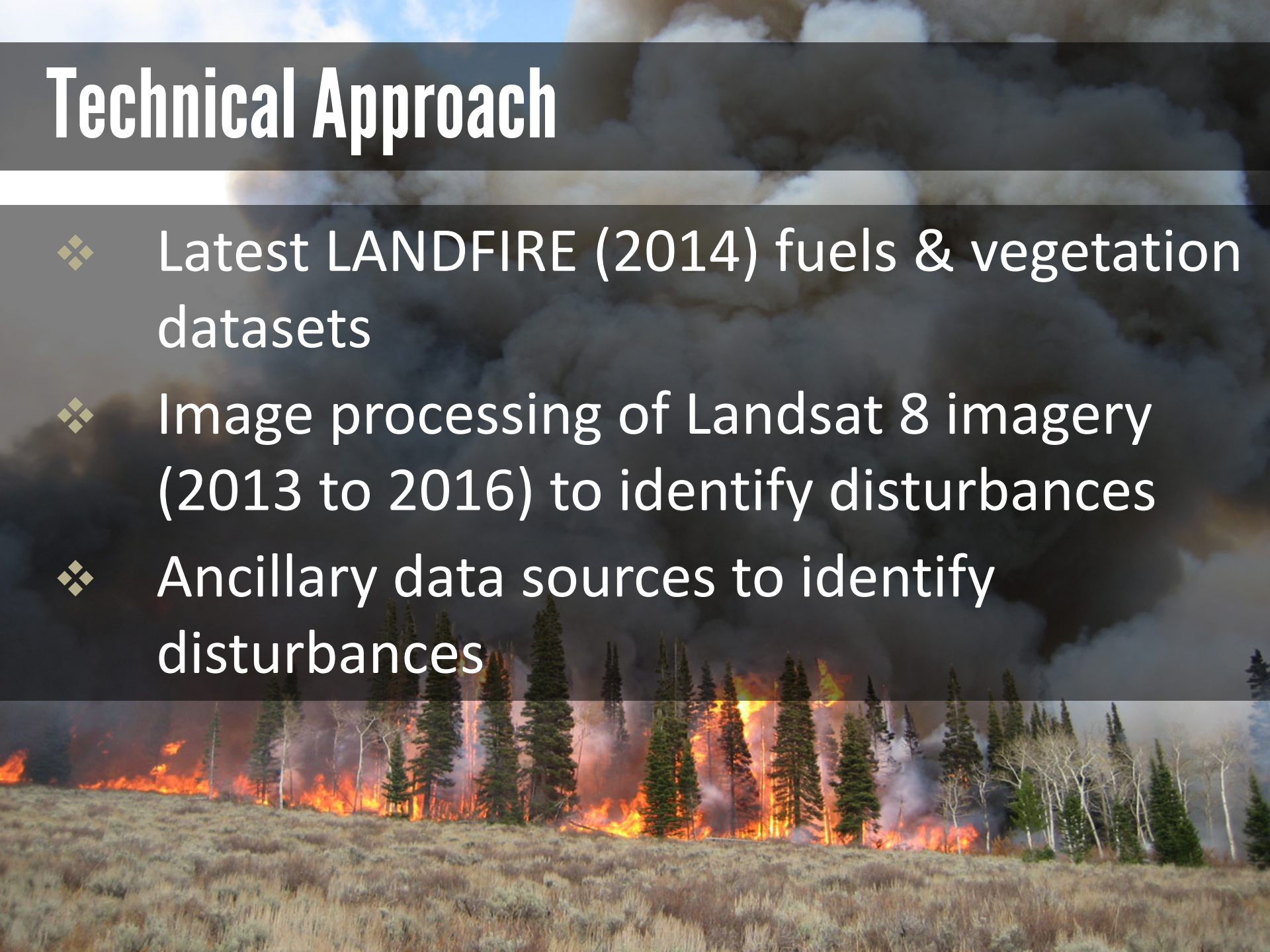
- ❖ Identify possible adjustments to the LANDFIRE fuels data to better represent expected and observed fire behavior
- ❖ To provide more accurate fuels datasets that will meet FB requirements of risk assessment, in support of the planning purposes of the Colorado Wildfire Risk Assessment

Technical Approach

1. Identify issues of concern that need investigation
2. Research issues and identify options for correcting the issues
3. Investigate technical options
4. Review technical findings
5. Conduct updates
6. Document updates & caveats for use

Technical Approach

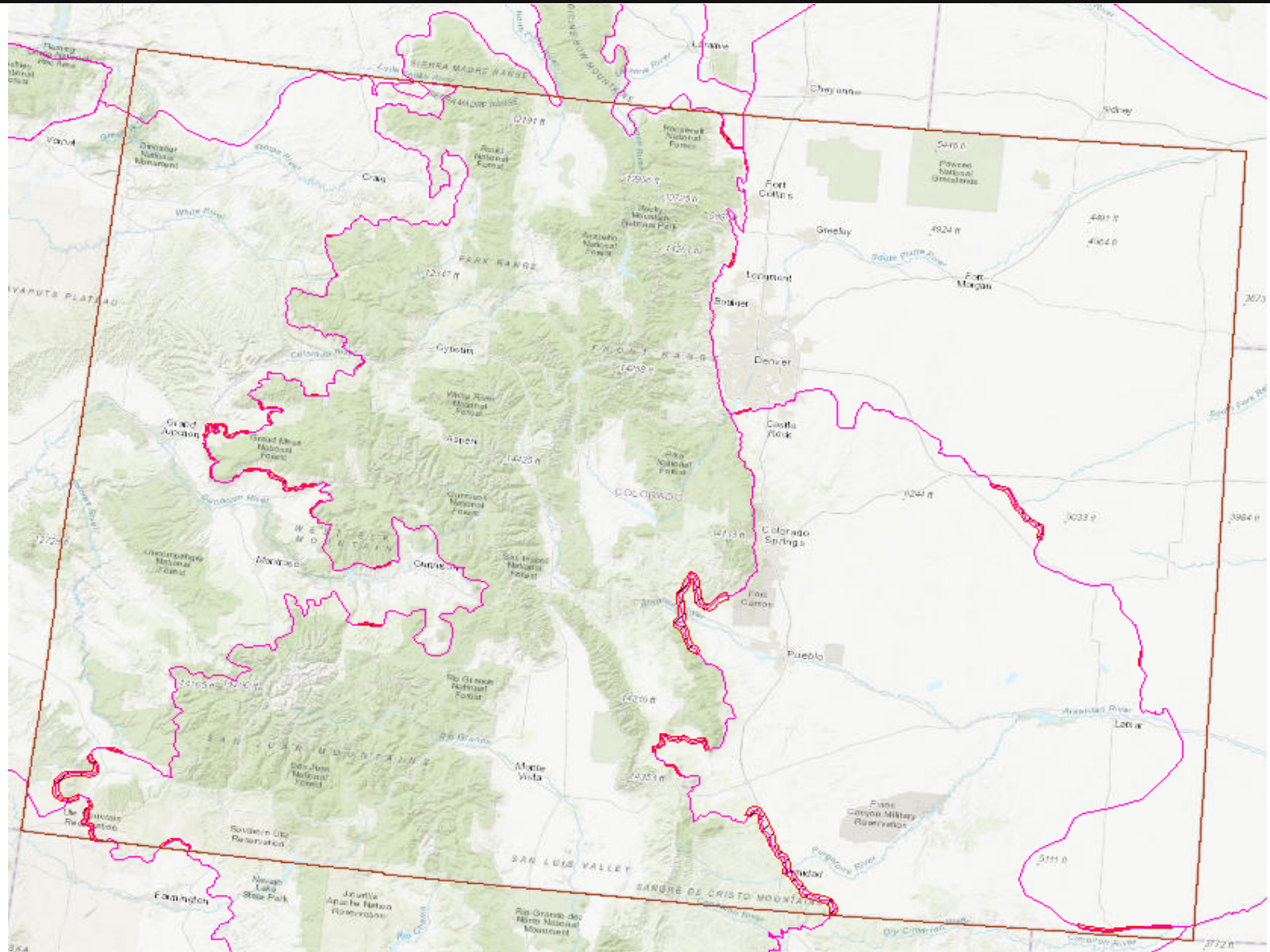
- ❖ Latest LANDFIRE (2014) fuels & vegetation datasets
- ❖ Image processing of Landsat 8 imagery (2013 to 2016) to identify disturbances
- ❖ Ancillary data sources to identify disturbances



Issues of Concern - LANDFIRE 2014

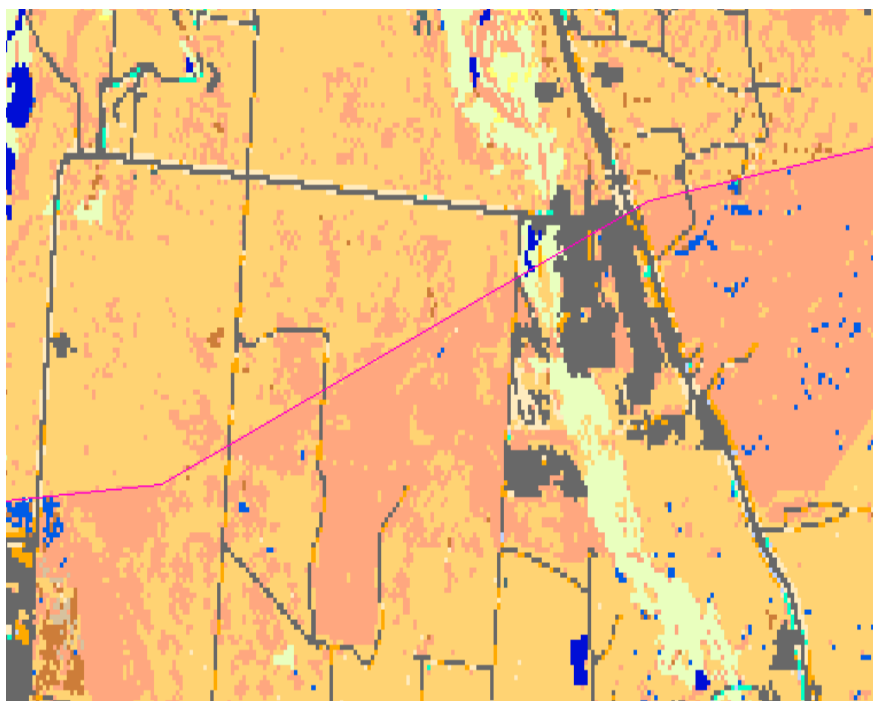
- ❖ Mapping zone seam lines
- ❖ SH07 & SH05
- ❖ Pinyon Juniper
- ❖ Oak Shrubland (understory)
- ❖ Elevation
- ❖ Disturbances
 - ❖ Insect & disease
 - ❖ Large Fires
 - ❖ Treatments/Harvesting

Mapping Zone Seam Lines

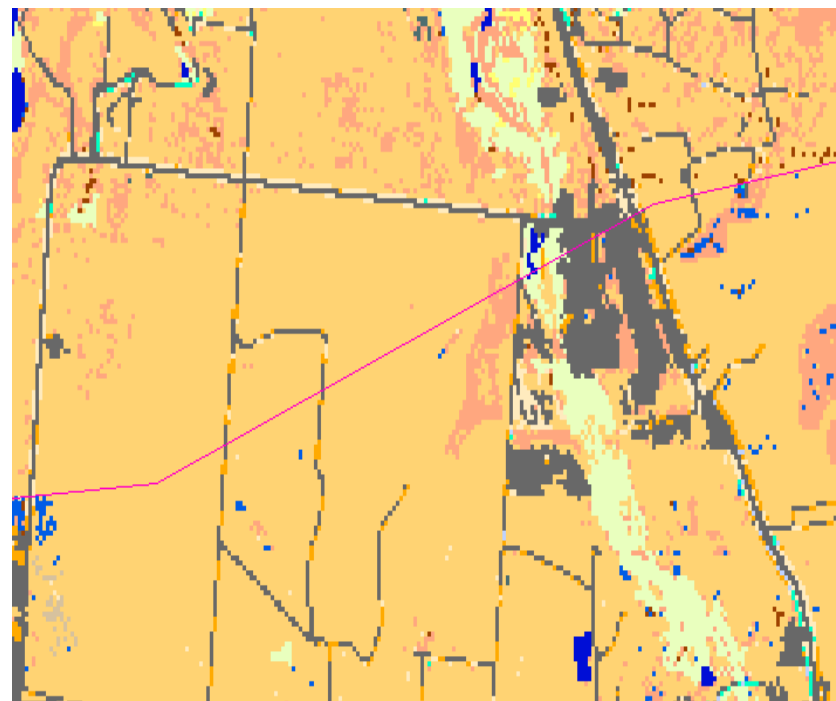


Mapping Zone Seam Lines

BEFORE



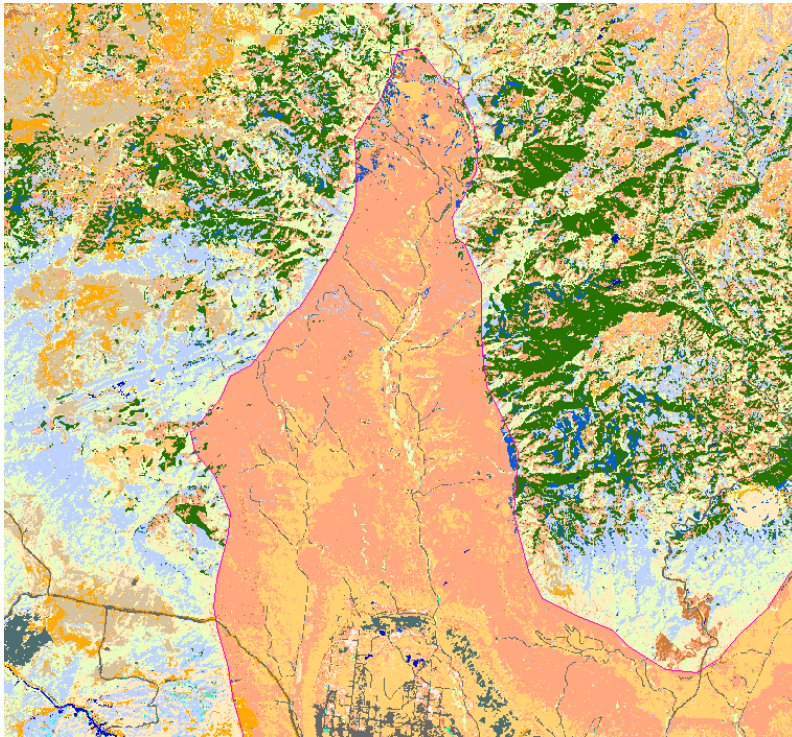
AFTER



- NB1
- NB2
- NB3
- NB8
- NB9
- GR1
- GR2
- GR3
- GR4
- GS1
- GS2
- SH1
- SH2
- SH3
- SH5
- SH7
- TU1
- TU2
- TU5
- TL1
- TL2
- TL3
- TL4
- TL5
- TL6
- TL7
- TL8
- TL9

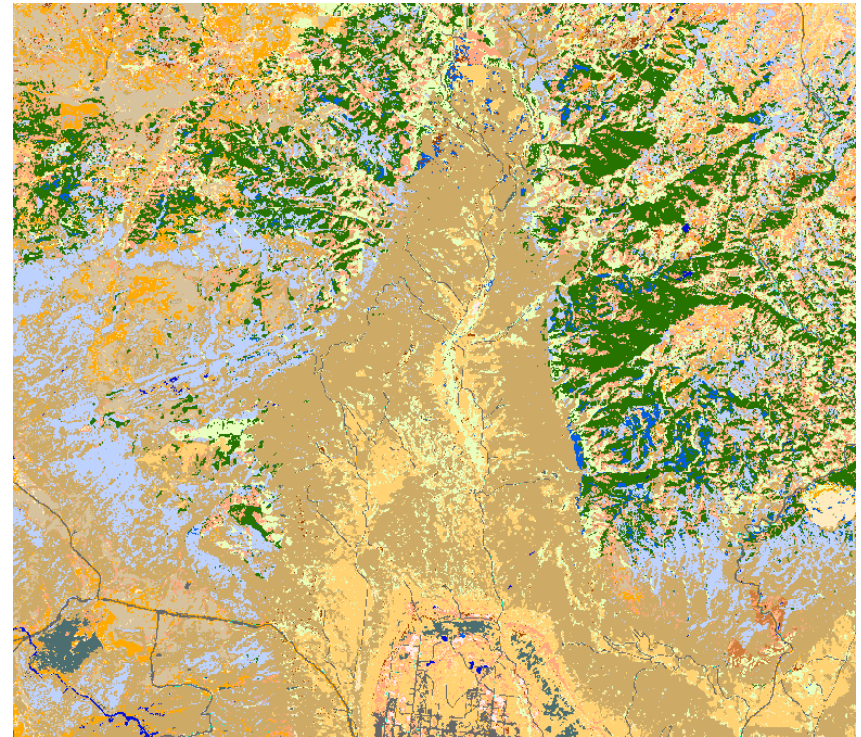
Mapping Zone Seam Lines

BEFORE

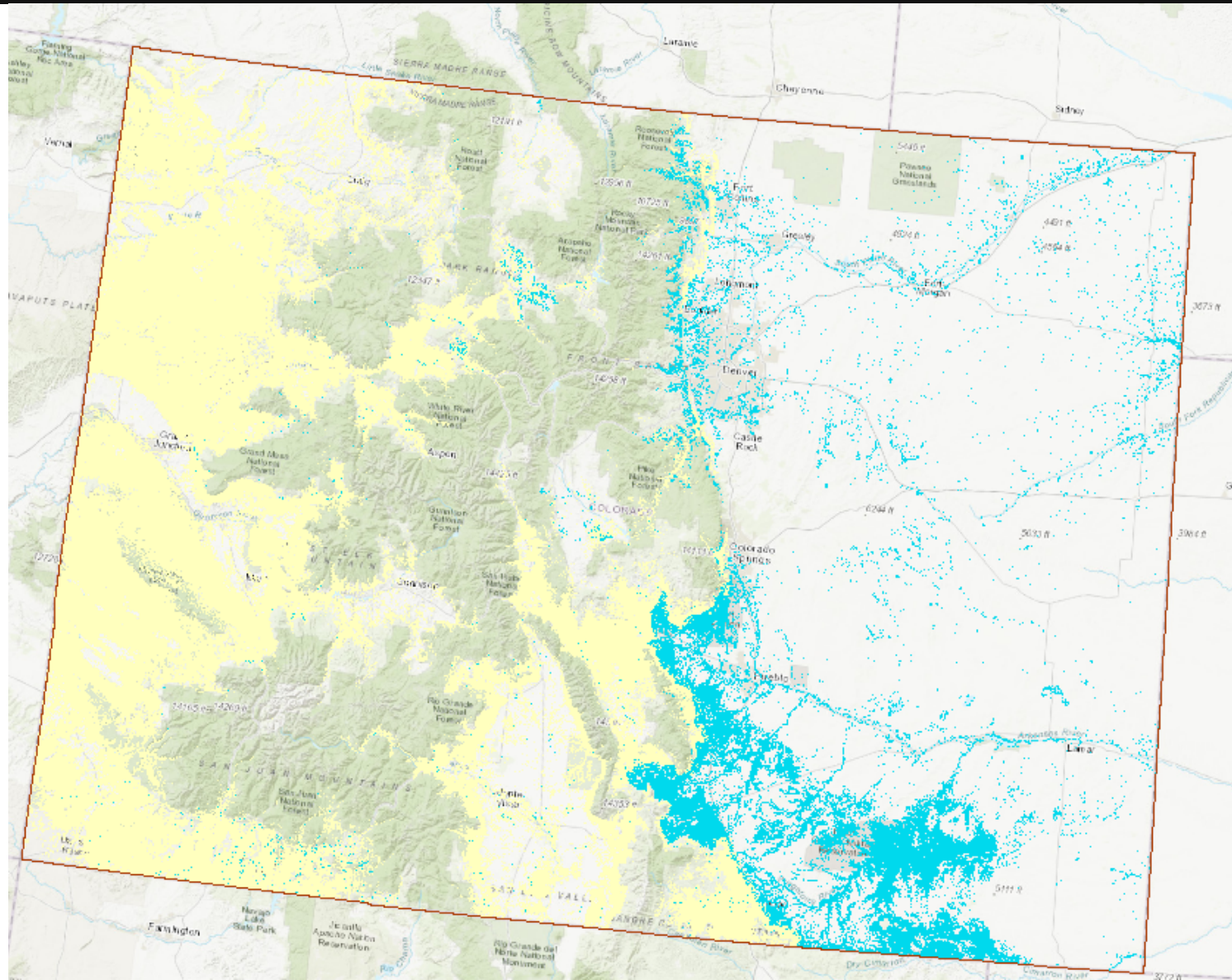
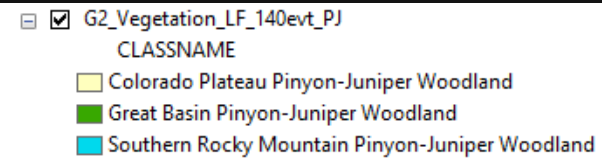


- NB1
- NB2
- NB3
- NB8
- NB9
- GR1
- GR2
- GR3
- GR4
- GS1
- GS2
- SH1
- SH2
- SH3
- SH5
- SH7
- TU1
- TU2
- TU5
- TL1
- TL2
- TL3
- TL4
- TL5
- TL6
- TL7
- TL8
- TL9

AFTER

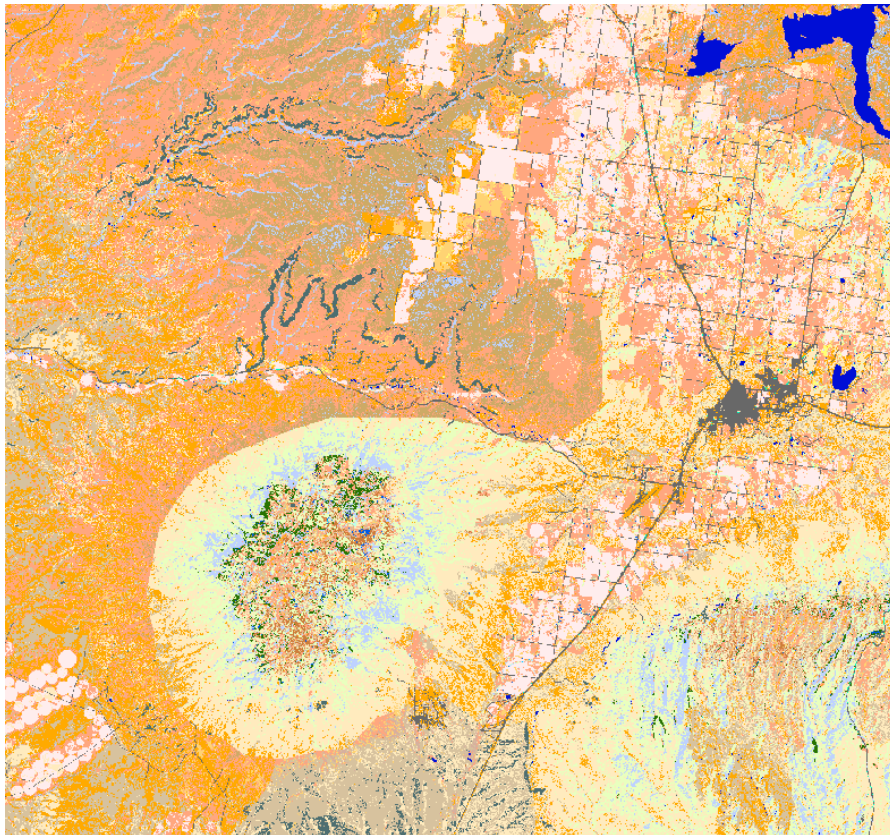


Pinyon Juniper

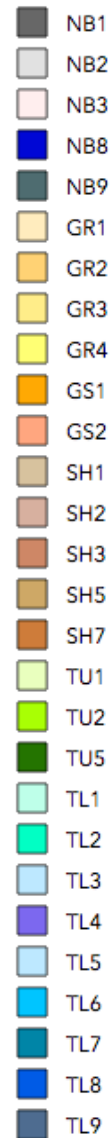
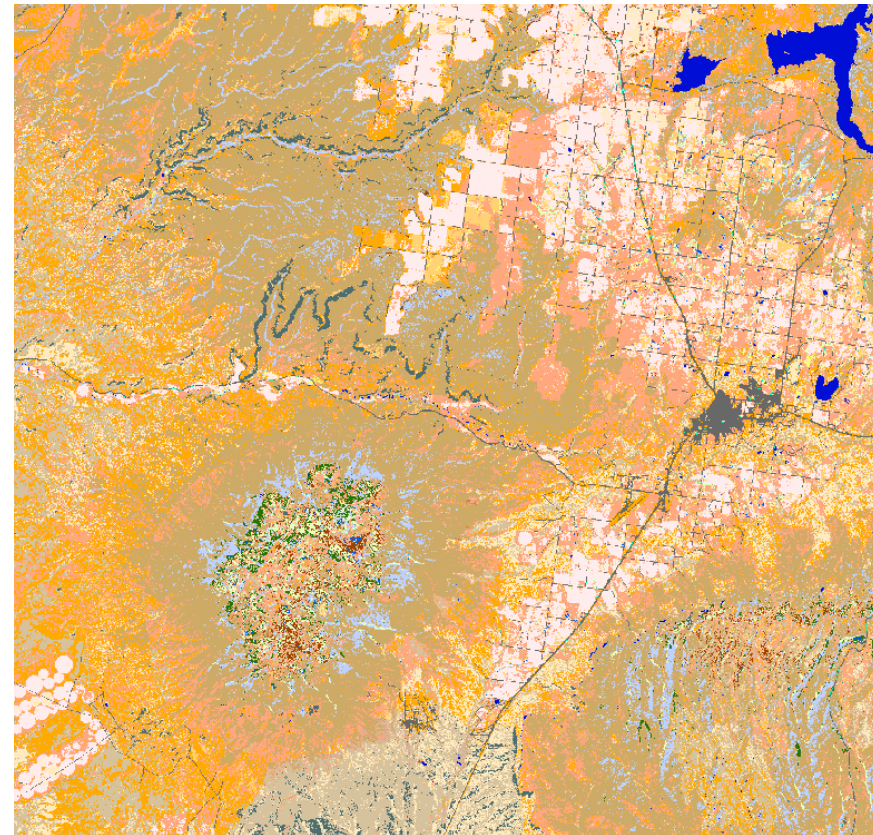


Pinyon Juniper

BEFORE



AFTER



Outputs

- ❖ A more accurate surface fuels dataset for the state of Colorado
- ❖ Refined canopy fuels to match the updated surface fuels
- ❖ Document describing the detailed rules and changes made
- ❖ Document describing the caveats for use (narrative)
- ❖ Colorado Fuels Guide publication

Next Steps

- ❖ Complete fuels data modifications
- ❖ Document changes & caveats for use
- ❖ Create “Colorado Fuels Guide” publication
- ❖ Derive fire behavior data outputs
- ❖ Update risk assessment data outputs
- ❖ Document changes from initial CO-WRA outputs to new outputs
- ❖ Update CO-WRAP apps

Contact Info



- ❖ Rich Homann
 - ❖ Richard.Homann@ColoState.edu
- ❖ David Buckley
 - ❖ DBuckley@Technosylva.com



Questions & Discussion

