

Shared Stewardship (S2) Draft Opportunity Map Development – Technical Guide

2020 Forest Action Plan organized around six Themes with goals categorized by national priorities CONSERVE, PROTECT, ENHANCE



Forest Conditions



Living with Wildfire



Watershed Protection



Forest Wildlife



Urban and Community Forestry



Forest Products

*Each theme includes a map, conditions
& trends, challenges & threats, goals,
strategies and approaches*

Priority Composite
Map Development:

**PRIORITY MAP:
LAYER INCLUSIONS**

Forest Conditions
Theme Priority Map



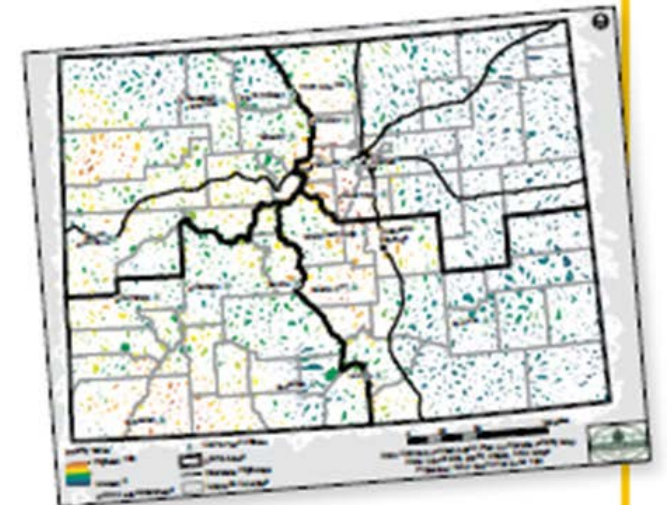
Living with Wildfire
Theme Priority Map



Watershed Protection
Theme Priority Map



Priority Composite Map



Forest Conditions Theme

- Basal area loss prediction based on potential insect and disease disturbance to 2027 (source: USDA USFS)
- Potential for canopy fire in 2017 (weighted 2x – source: CSFS WRA)
- Wildland-urban interface (WUI) projected to 2040 (weighted 1x – proxy for development/forest conversion; source: Dr. Dave Theobald)

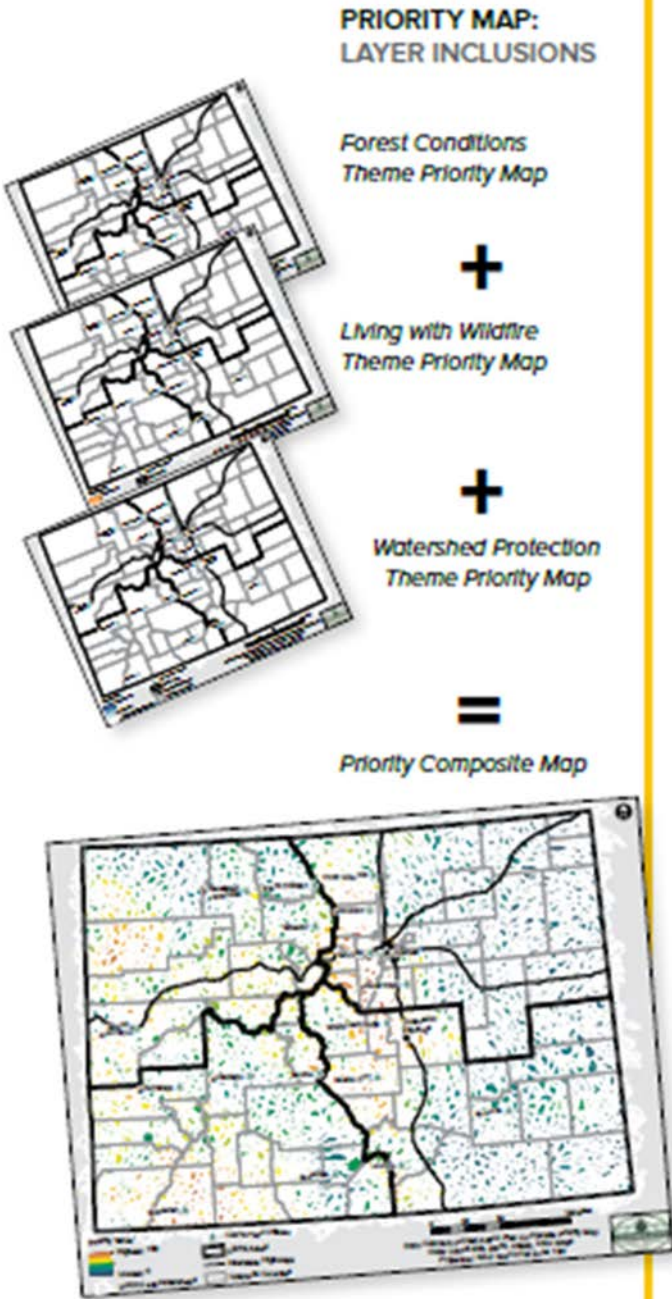
Living with Wildfire Theme

- Wildfire risk 2017 – possibility of loss or harm occurring from a wildfire (weights: current WUI 0.364; drinking water assets 0.364; forest assets 0.181; riparian assets 0.091; combined with burn probability – source: CSFS WRA)

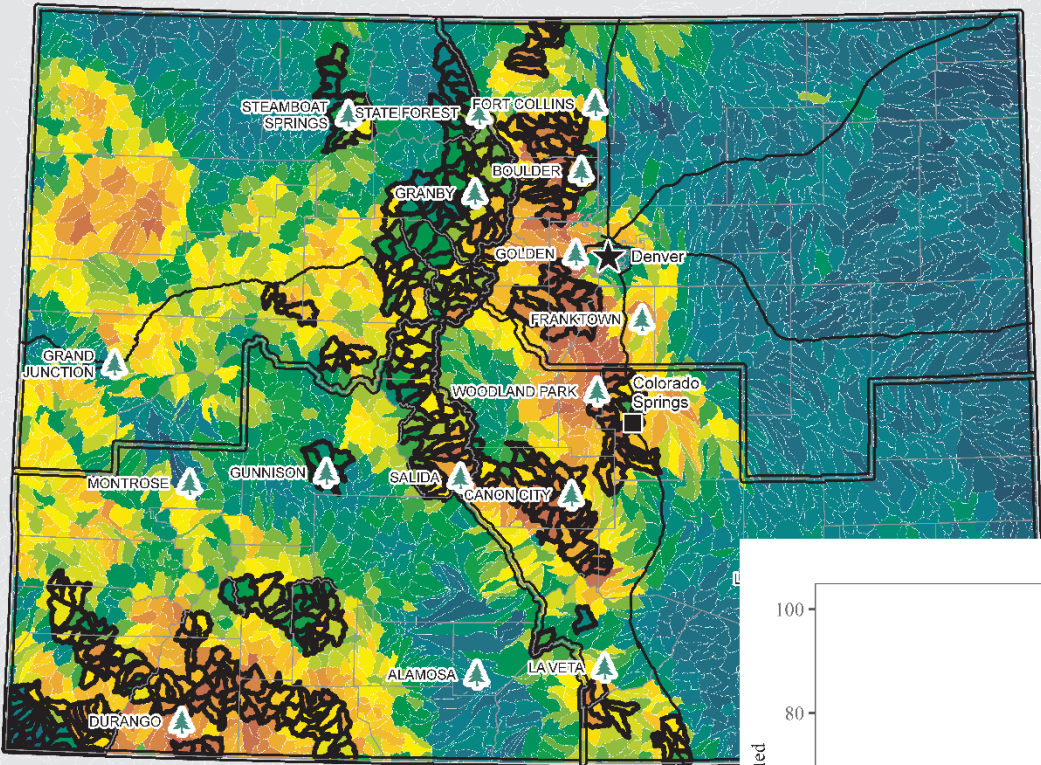
Watershed Protection Theme

- Two subthemes:
 - Improve and maintain the quality of water (weighted 2x)
 - Municipal water supply use* (source: CDPHE)
 - Surface water zones (CDPHE)
 - Predicted post-fire erosion rates (source: Miller et al. 2011)
 - Groundwater under the influence of surface water zones (CDPHE)
 - Groundwater zones (CDPHE)
 - Infrastructure (weighted 1 x)
 - Conveyances – CDPHE
 - Surface Water Diversion Intakes (CDPHE)
 - Surface water source intakes (CDPHE)
 - Groundwater under the influence of surface water intakes (CDPHE)
 - Groundwater Wells (CDPHE)

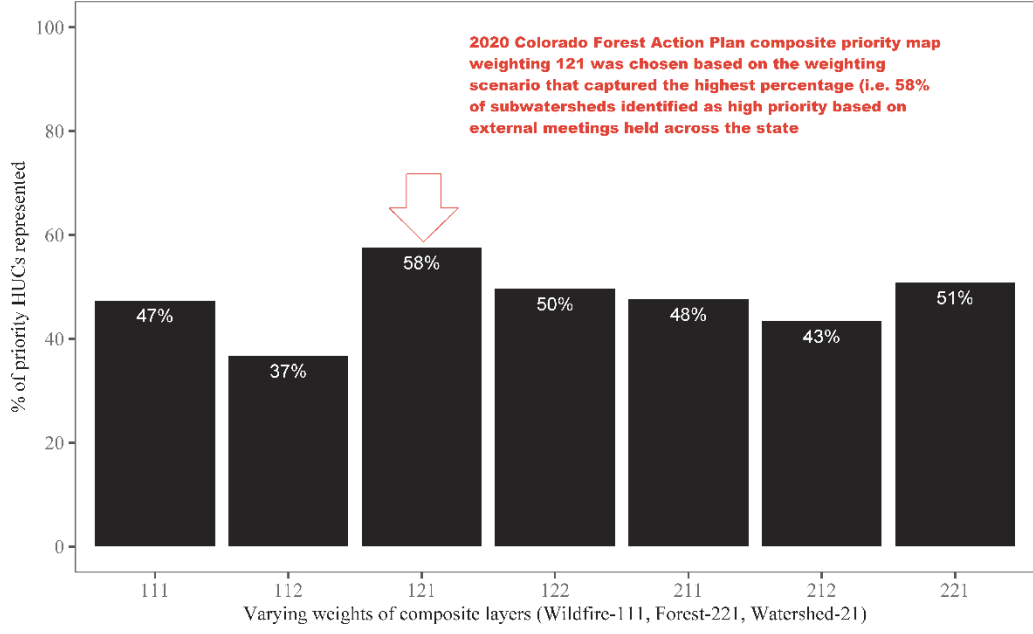
2020 Colorado Forest Action Plan



Justification for weighting selection – captured the greatest proportion of subwatersheds identified as high priority at external meetings held across CO



- External Outreach High Priority Polygons
- CSFS Field Offices
- CSFS Areas
- Interstate Highways
- HUC12 subwatersheds
- Colorado Counties



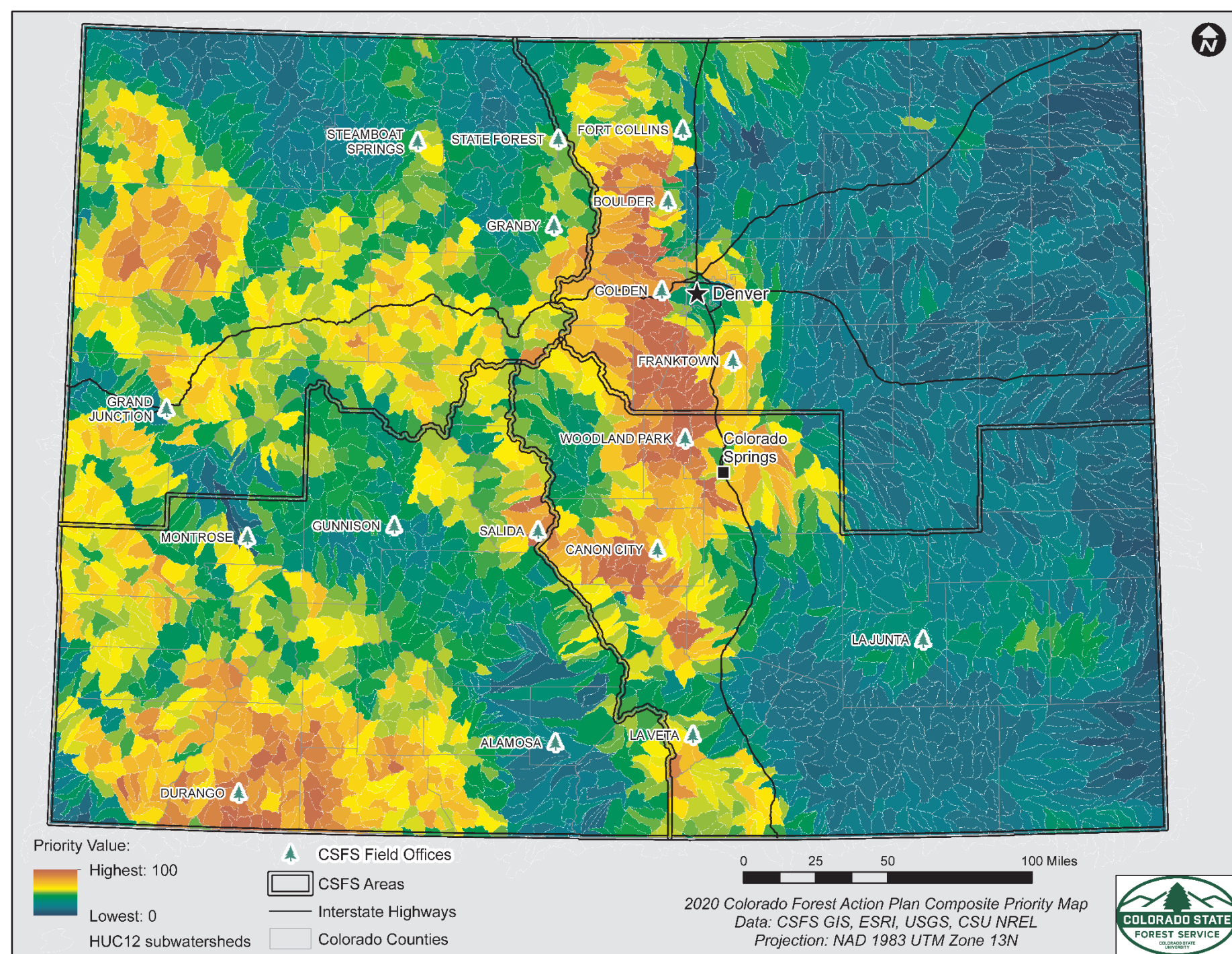
2020 Colorado Forest Action Plan External Outreach Map
Data: CSFS GIS, ESRI, USGS, CSU NREL, Utilities
Projection: NAD 1983 UTM Zone 13N



2020 Forest Action Plan Composite Priority Map – Forest Conditions, Living with Wildfire, and Watershed Protection Themes.

- Forest Conditions Theme – weighted 2x
- Living with Wildfire Theme – weighted 1x
- Watershed Protection Theme – weighted 1x

HUC 12 Watersheds with value greater than 60 were considered highest priority



Shared Stewardship Draft Map

- Base map for prioritization – 2020 Forest Action Plan Composite Priority Map
 - Fits S2 themes Ecological Restoration, Health Communities, and Protection of water resources and critical infrastructure
- Use an additive (+) approach to add data to address other themes in S2 MOU:
 - S2 theme: Ecological Restoration + 5
 - Aridity (proxy for cumulative drought projected to 2050; Lynker Tech. developed for CWCB Future Costs)
 - S2 theme: Sustainable Recreation Opportunities and Amenities + 10
 - Merged Federal and State camping; all trails; facilities; ski areas
 - S2 theme: Conserve and Protect Fish and Wildlife +10
 - 2020 Forest Action Plan Wildlife theme priority map
 - S2 theme: Healthy Communities + 10
 - Wildfire social vulnerability index – created by CSU/RMRS for FRWRM

Shared Stewardship Draft Map

HUC 12 Watersheds with value greater than 80 are shared opportunity areas

**Wildland urban interface (WUI), Rocky Mountain Restoration Initiative (RMRI), and Large CO Wildfires 2020 boundaries as reference*

