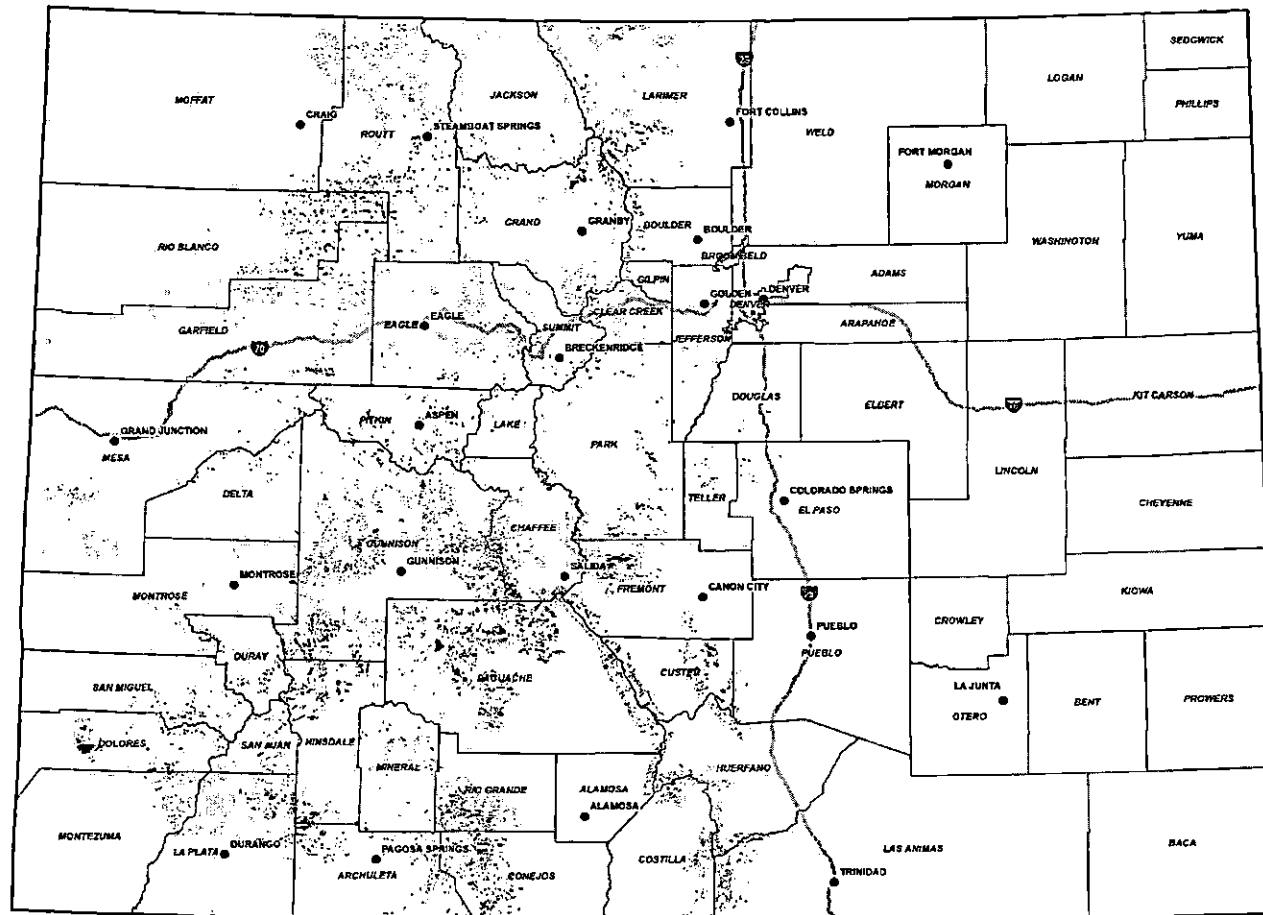


**2017 Report
on the
Health of Colorado's Forests
Meeting the Challenge of Dead and At-Risk Trees**



2017 Forest Insect and Disease Activity



- | | |
|--|---|
| Forestland | Spruce Beetle
205547 acres |
| Western Spruce Budworm
252361 acres | Western Balsam Bark Beetle
50080 acres |
| Douglas-fir Beetle
14000 acres | Bark Beetle Complex
12000 acres |
| Fir Engraver
2496 acres | Aspen Diseases and Defoliating Insects
78421 acres |

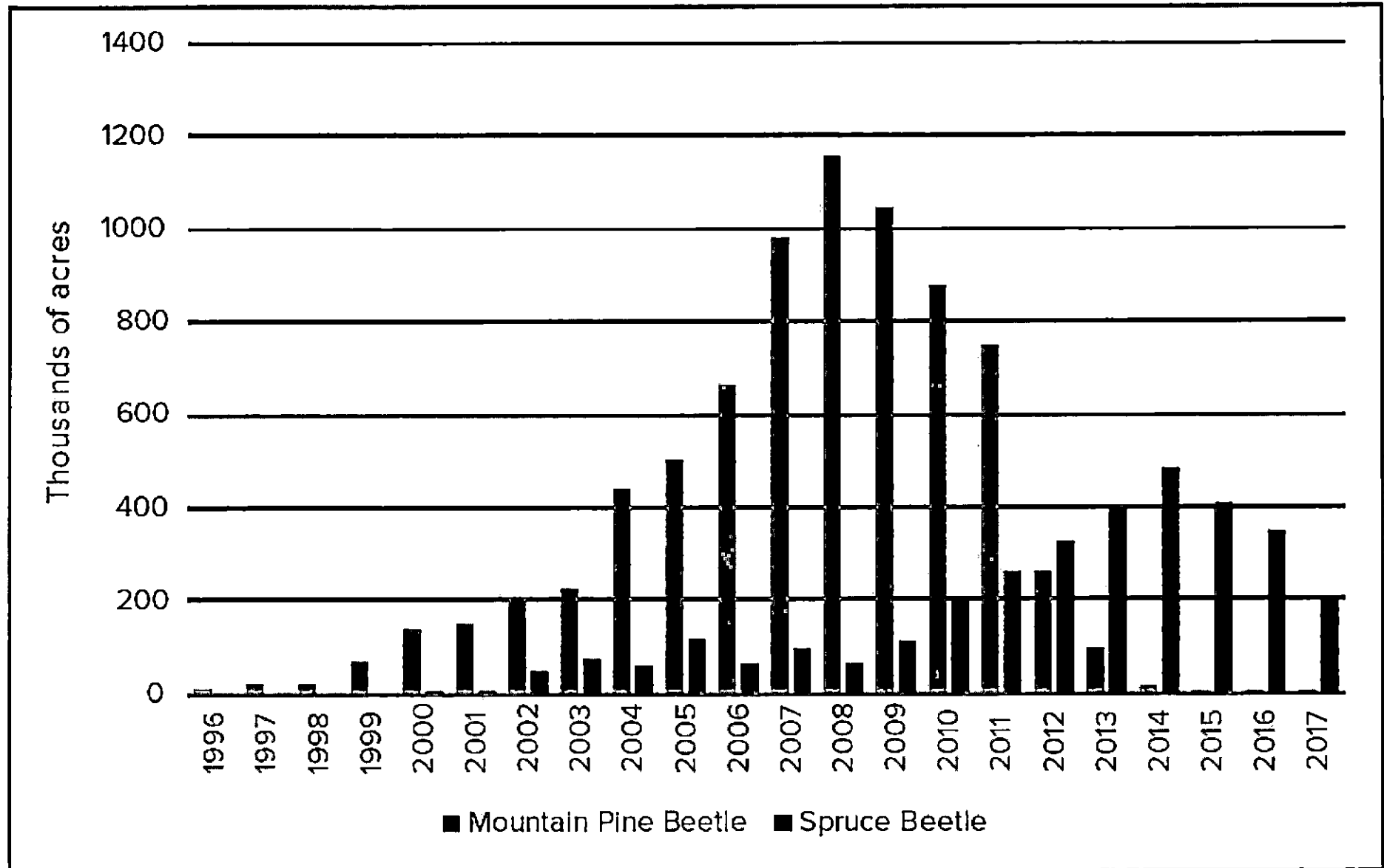


2017 Forest Insect and Disease Activity: Bark Beetles



- Nearly 3.4 million acres of Colorado's pine forests have been impacted by the mountain pine beetle since 1996
- Another 1.78 million acres of Engelmann spruce have been affected by the spruce beetle
- Together these bark beetles have caused widespread tree mortality on roughly one-fifth of Colorado's forestland over the past two decades

Mountain Pine Beetle and Spruce Beetle-Caused Mortality in Colorado



2017 Forest Insect and Disease Activity: Spruce Beetle



The spruce beetle was Colorado's most widespread and damaging forest insect for the 6th consecutive year.

206,000 acres with active infestations were observed in high-elevation Engelmann spruce.

Nearly a third of these acres were "new" or not previously infested -- indicating a continued spread.

Expanding outbreaks in northern/central CO have the potential to affect susceptible new areas.



2017 Forest Insect and Disease Activity: Western Spruce Budworm/Douglas-fir Beetle



Western Spruce Budworm

- For a number of consecutive years, this moth has been Colorado's most damaging and widespread forest defoliator.
- Defoliated 252,000 acres of fir and spruce in central and southern Colorado in 2017.
- Cause less mortality than bark beetles but during outbreaks of 3+ years, trees may die.

Douglas-fir Beetle

- Continued to attack and kill mature Douglas-fir in central/southern CO, including the Gunnison Basin.
- Approximately 14,000 acres were impacted statewide, with 11,000 acres being new.

Managing Bark Beetles in the Gunnison Basin



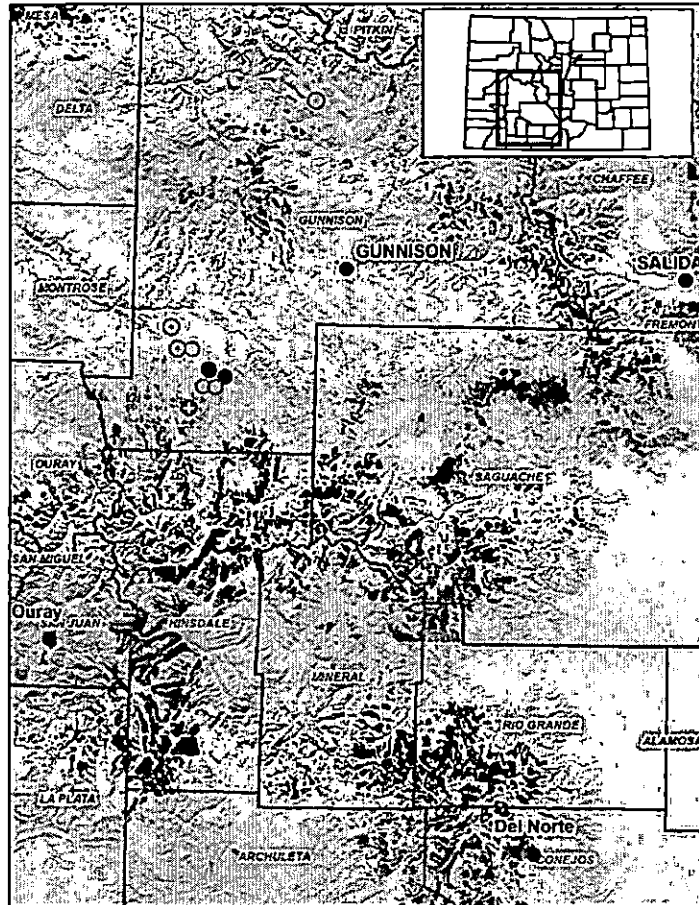
The Gunnison Basin has been dealing with some of the state's most serious bark beetle outbreaks, in part due to prolonged drought conditions.

Several programs and methods are currently being employed to deal with this growing concern, including:

- The Western Bark Beetle Program
- Pheromone treatments to repel attacks on susceptible trees
- Use of the Good Neighbor Authority to allow state contracting procedures to be used for management efforts on federally owned lands



Gunnison Basin Treatments



2012 - 2017

- | | | | | | | | |
|--|------------------------|--|---------------------------------|--|-----------|--|---------|
| | Spruce Beetle | | In Progress | | Completed | | Planned |
| | Douglas-fir Beetle | | Good Neighbor Authority Project | | | | |
| | Western Spruce Budworm | | | | | | |
| | Forestland | | | | | | |

25 Miles



Challenges with Wildland Fire



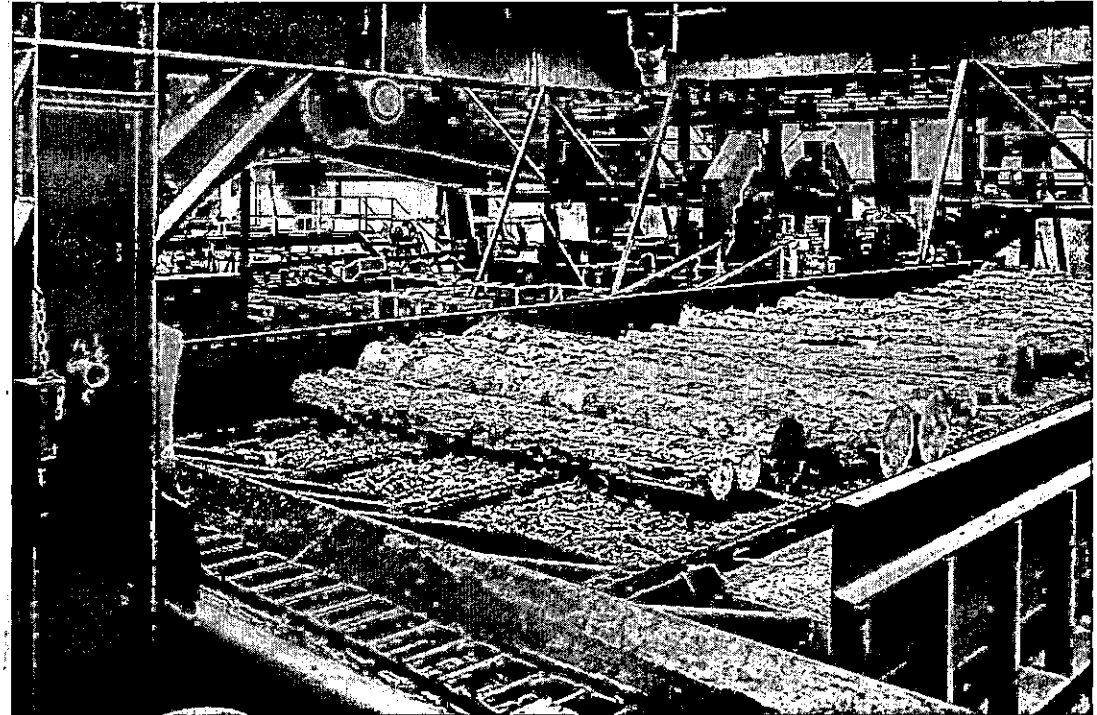
- 30% of Colorado's forests owned by private landowners – there are around 7,000,000 acres of private forestland in Colorado
 - More than 2 million people live in the Wildland Urban Interface (WUI)
- More than 5 million acres of forest have significant mortality from insect and disease
- Longer fire seasons, larger fires with negative impacts to watersheds and forests
- Limited funding for forest management treatments

Meeting the Challenge of Dead and At-Risk Trees



Standing dead trees can hold value for years, and are being utilized by wood products businesses in efforts that support forest management.

The CSFS and its partners are working with sawmills and forest products businesses statewide to seize the opportunity.



Colorado has more than 100 sawmills and 1/3 of these mills use beetle-killed trees. Despite these efforts, much of the standing dead timber is not being addressed.

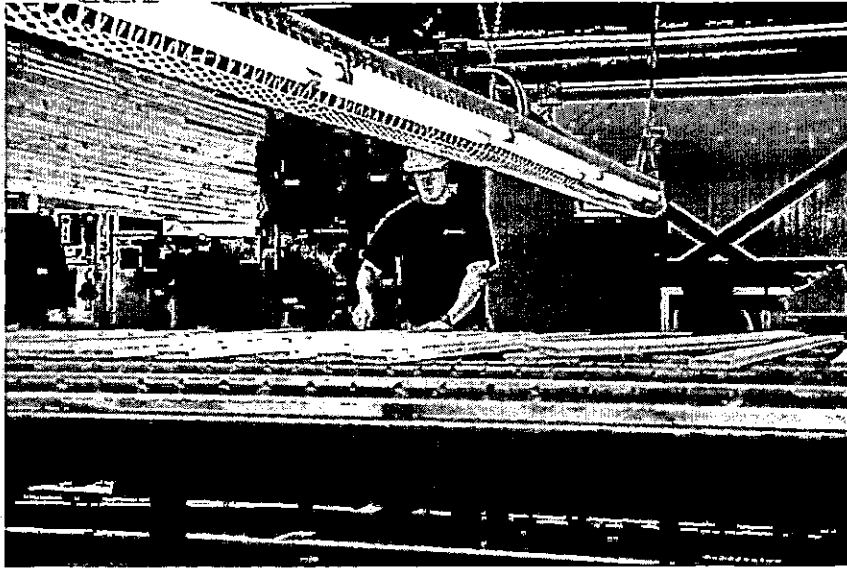
Meeting the Challenge of Dead and At-Risk Trees



The CSFS and its partners are exploring opportunities to derive value from Colorado's standing dead trees, including:

- Research with CSU to determine how long wood remains usable after being killed by bark beetles or fire.
- Work with the U.S. Forest Service to provide access to capital to support the state's sawmills.
- Finding new markets to utilize Colorado's dead trees.
- Weak markets remain an ongoing challenge.

Creating Jobs in the San Luis Valley: Blanca Forestry Products



With help from the Colorado Office of Economic Development and International Trade, Blanca Forestry products opened in early 2017.

Blanca Forestry Products now employs almost 50 full-time workers.

The CSFS and Trinidad State College's Valley Campus are exploring opportunities to link the educational and job-training role that the college offers with career opportunities at businesses like Blanca Forestry Products.

"Kids that left the Valley for employment opportunities elsewhere are returning back due to the employment opportunities that we're able to provide."

-Ty Ryland, president, Blanca Forestry Products

Further CSFS Actions



- Expansion of Good Neighbor Authority Projects
- Supporting Forest Management Cooperatives
 - 2 3 2 Southwest Colorado
 - Upper South Platte Partnership
- Forest Restoration & Wildfire Risk Mitigation Grants
 - Demand
 - Funding

Colorado State Forest Service 2018 Organizational Restructure



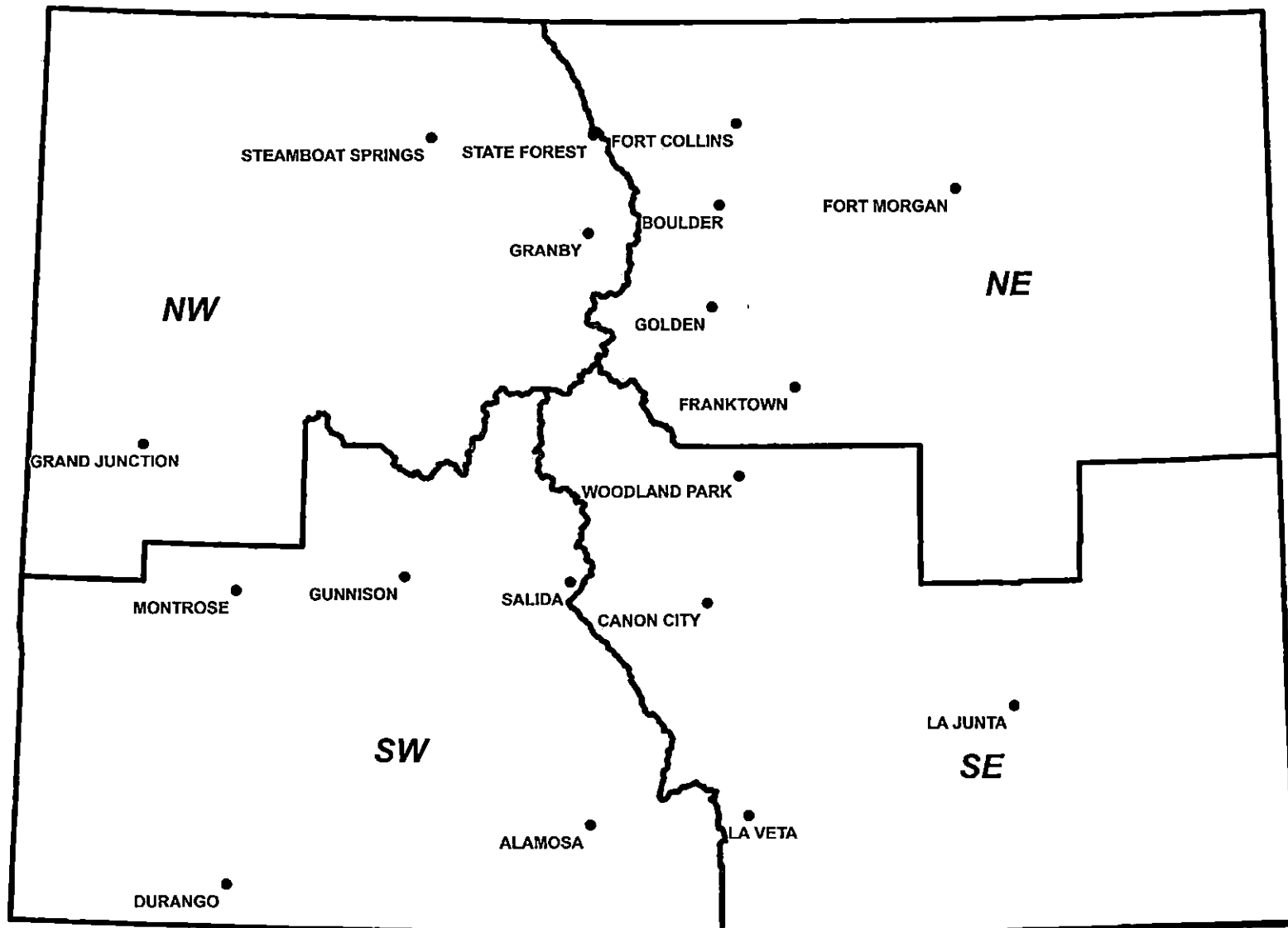
The CSFS is realigning its organizational structure to address evolving needs and maximize impact

The previous CSFS structure of 15 separate districts is being replaced by 4 management areas (NW, NE, SW, SE)

Within each of these areas, staff with specialized expertise will:

- Apply science and data to forestry programs and projects
- Plan and implement work on the ground
- Provide outreach and community forestry services

A new CSFS Science and Data Division will support strategic and project-level planning based on current research and enhance management and reporting of data



Forest Health Advisory Council



Established by HB16-1255

24-Member Council (appointed by the Governor) that is tasked with advising the State Forester on a broad range of issues, opportunities, and threats with regard to Colorado's forests

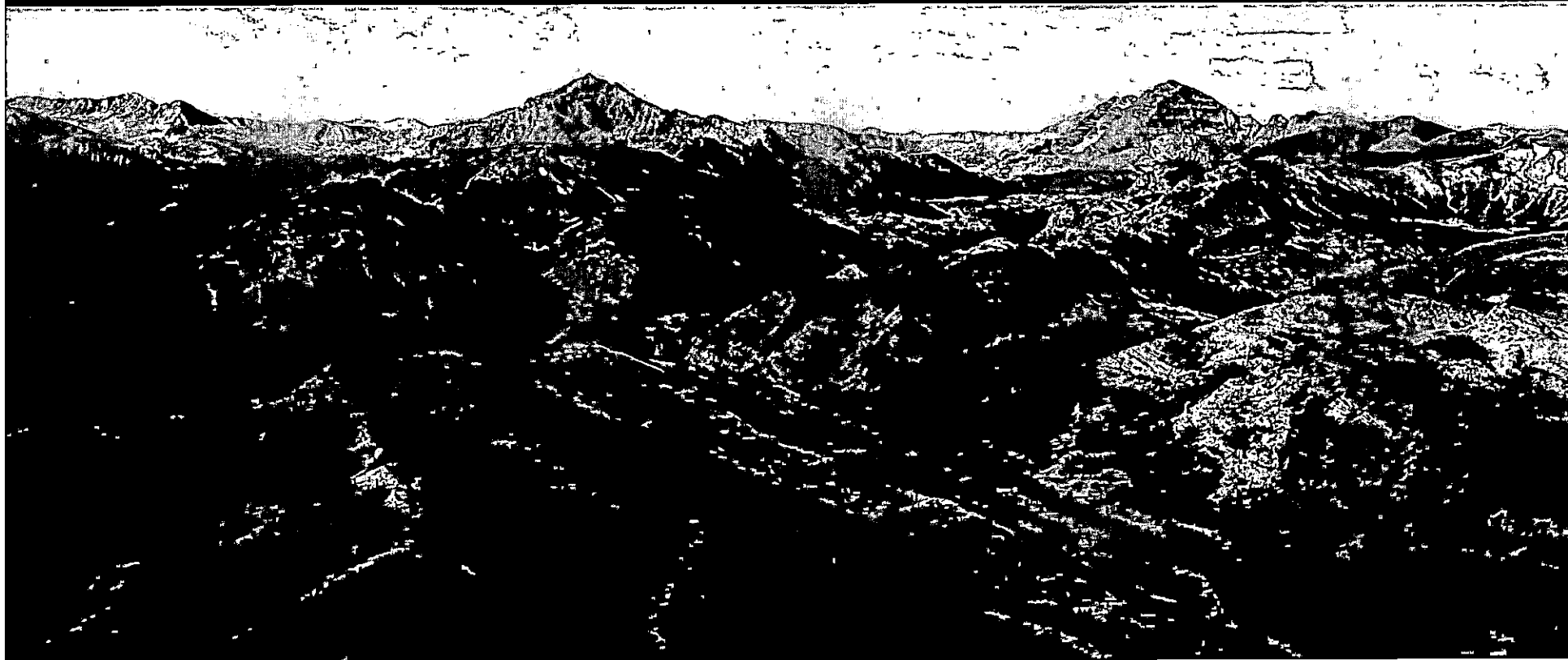
Wide range of experts in forestry, wildfire, wood products industry, motorized and non-motorized recreation, irrigation districts, County Commissioners, utility companies, etc.

The FHAC has come up with a list of preliminary agreements and a list of priorities and action items

Review of FHAC Opportunities



- **Expand Local Funding to Promote Forest Health**
- **Expand the Timber Industry in Colorado**
- **Regional Approach to Forest Health Management**
- **Proactive Forest Management**
- **Governmental Immunity for State agencies to Conduct Prescribed Burns**



Questions?

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