

Wildfire Matters Review Committee

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About the Colorado State Forest Service

The Colorado State Forest Service (CSFS) was established by the General Assembly in 1955.



... and growing

About the Colorado State Forest Service

- The CSFS is part of the Warner College of Natural Resources at Colorado State University
- Inform research efforts, engaging researchers, faculty, and students
- Provide students with practical experience

About the CSFS

The **mission** of the CSFS is to achieve stewardship of Colorado's diverse forest environments for the benefit of present and future generations.

The CSFS staffs the Division of Forestry in the Colorado Department of Natural Resources.



About the CSFS

The CSFS employs 105 people across 19 locations. Headquarters are located on CSU's Foothills Campus in Fort Collins.

CSFS annual expenditures exceed \$13 million, with more than 43 percent coming from the federal government.



Forest Management

- CSFS provides leadership through expertise in fire mitigation efforts and forest restoration through 19 offices across Colorado
- Natural Resources Grants and Assistance
 - resource for communities to search for CWPP and fuels mitigation funds
 - information on funding sources available to assist with fuels mitigation funds

Forest Management

- Layout of forest management and fuel mitigation projects, including defensible space
- Defensible-space guidelines were revised in 2013 to reflect the latest in research
- Assist with development of forestry contract specifications
- Offer technical assistance services

Wildland fire mitigation outreach

- Over 2,000,000 Colorado residents in WUI
- CSFS assists communities become fire adapted
 - Community Wildfire Protection Plans (CWPPs)
 - Firewise Communities/USA™
 - Publications for landowners
 - Technical assistance from local CSFS foresters

Pile Burning

- Cooperative effort between CSU/CSFS, DNR, & DFPC
- Safely burned 950 piles on public land
- Reduced fuels on those lands

Colorado Wildfire Risk Assessment Portal (CO-WRAP)

The Colorado Wildfire Risk Assessment Portal provides information on values at risk through data, maps and detailed summary reports.





Getting Started ?

Explore Map Themes ?

- Reference Base Layers
- Wildfire Risk Themes
 - Wildfire Risk
 - Wildfire Threat**
 - Fire Occurrence Areas
 - Where People Live
- Wildfire Effects Themes
- Wildfire Behavior Outputs
- Landscape Characteristics
- Historical Wildfire Occurrence

Active Layer Description
Likelihood of an acre burning

Hide Legend Full Description
Transparency 54

Manage Project Areas ?

Use the tools below to define and manage your project areas

- Manage
- Zoom To
- Show on map

Active Project Area:
Fourmile Canyon Fire
6,174.4 acres

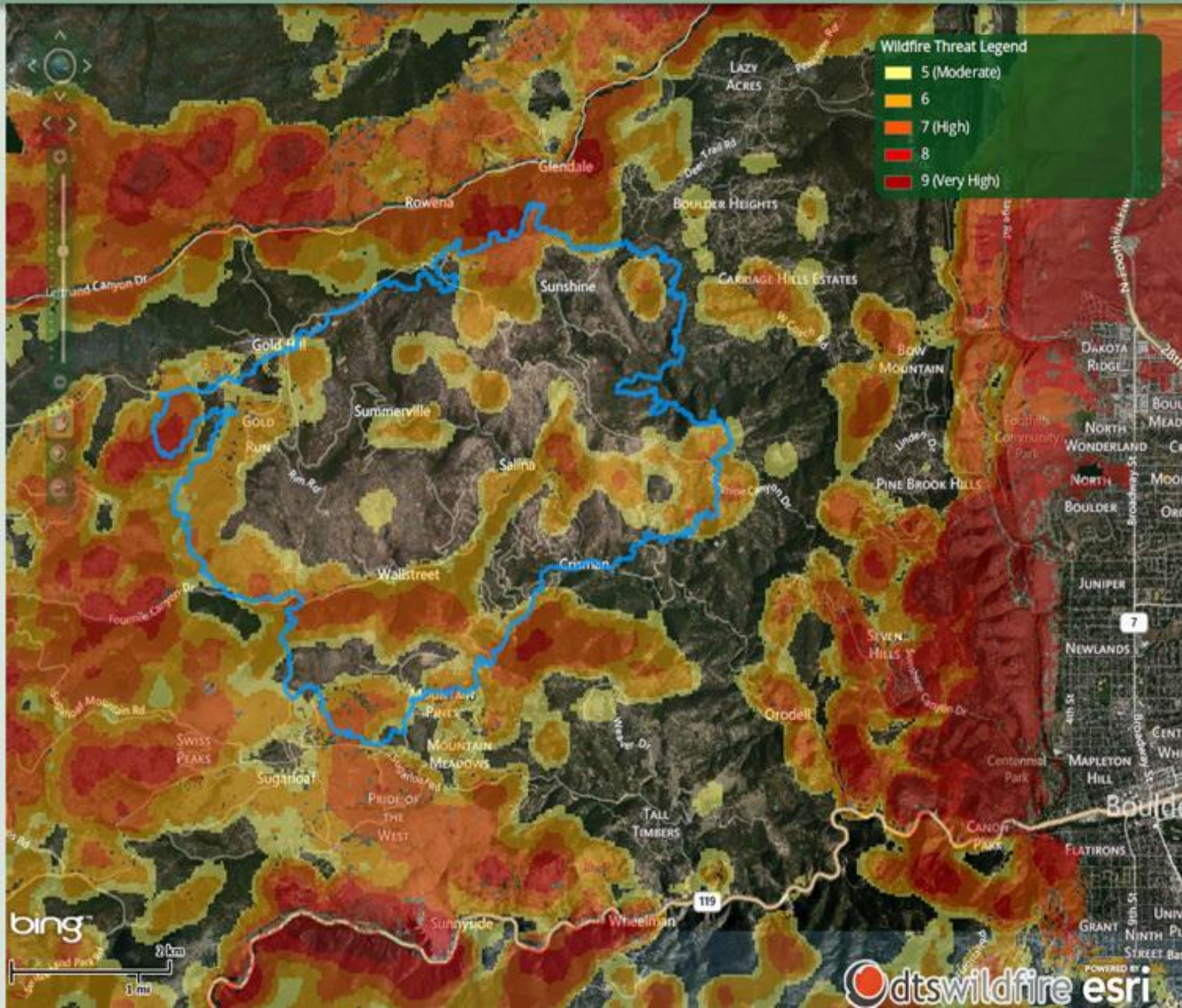
Generate Summary Report ?

Export Data ?

Print Map ?

Zoom To... ?

Zoom To Results ?



DNR Wildfire Risk Reduction Grants

- The CSFS worked collaboratively with many of the recipients of the grants
- Assisting with grant formulation and development and with grant implementation

Community Wildfire Protection Plans

- Responsible for review and approval of CWPP's in Colorado
- Colorado currently has 227 CWPPs including 47 county-wide plans
- All plans are posted on the CSFS website at www.csfs.colostate.edu

Firewise Communities/USA™ designation

- CSFS reviews and approves all Firewise Community applications
- 120 communities have received the national Firewise Communities/USA™ designation
- Colorado ranks third in the country with the most communities

CSFS in Recovery

- Continues to help landowners manage forests for insects and disease
- Reduce risk of wildfire through FireWise activities and defensible space
- Restoring Colorado's Forests – Seedling Fund

Forest Health and Fire Risk

- Ponderosa Pine, Lodgepole Pine, and Spruce-Fir
- Risk of crown fire greatest first 1-3 years for pines
- Risk of crown fire diminishes after needles fall off
- Fire intensity risk increases 15-20 after mortality
- Forest management can increase age-class diversity, species diversity and reduce stand density

Forest Health and Fire Risk

- Stands not more likely to burn
- When stands do burn, fires are more intense, more difficult to predict, more difficult to control

Ponderosa Pine

- Represent 75% of forests in WUI
- Ponderosa Pine ecosystems used to see low intensity fires every 10-50 years
 - Created stands with widely spaced trees
- Fire suppression led to dense stands susceptible to intense fires

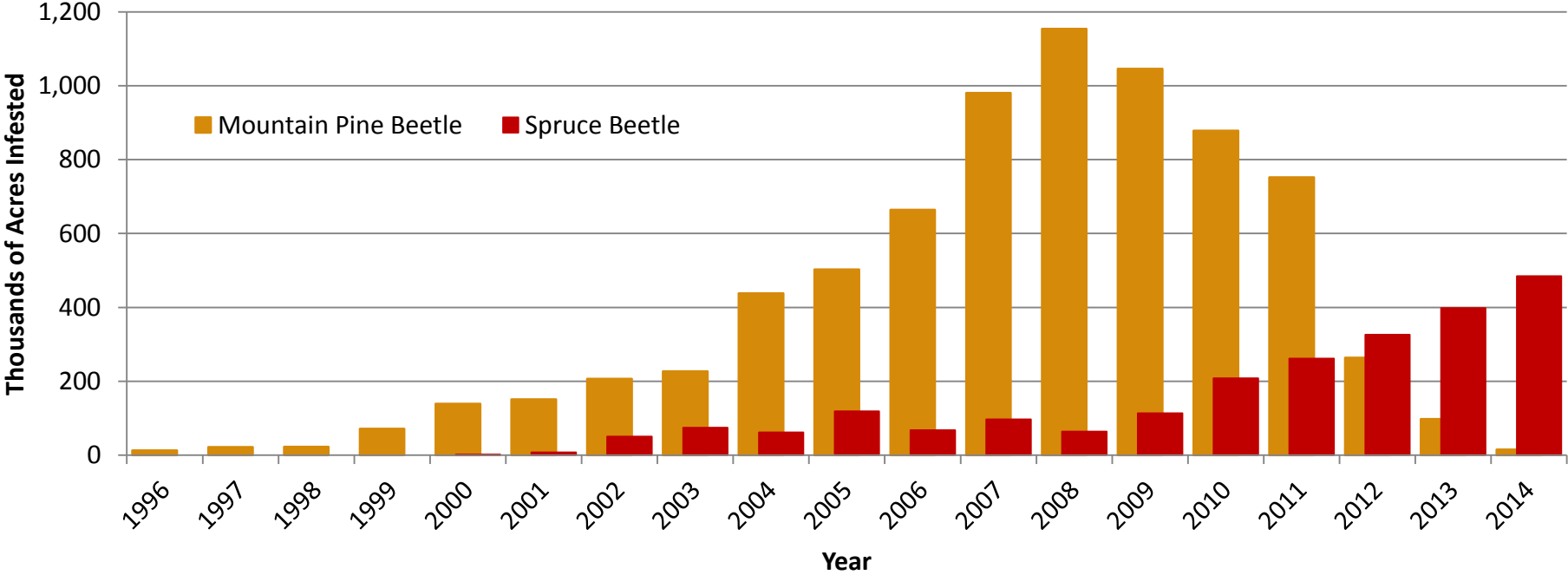
Lodgepole Pine

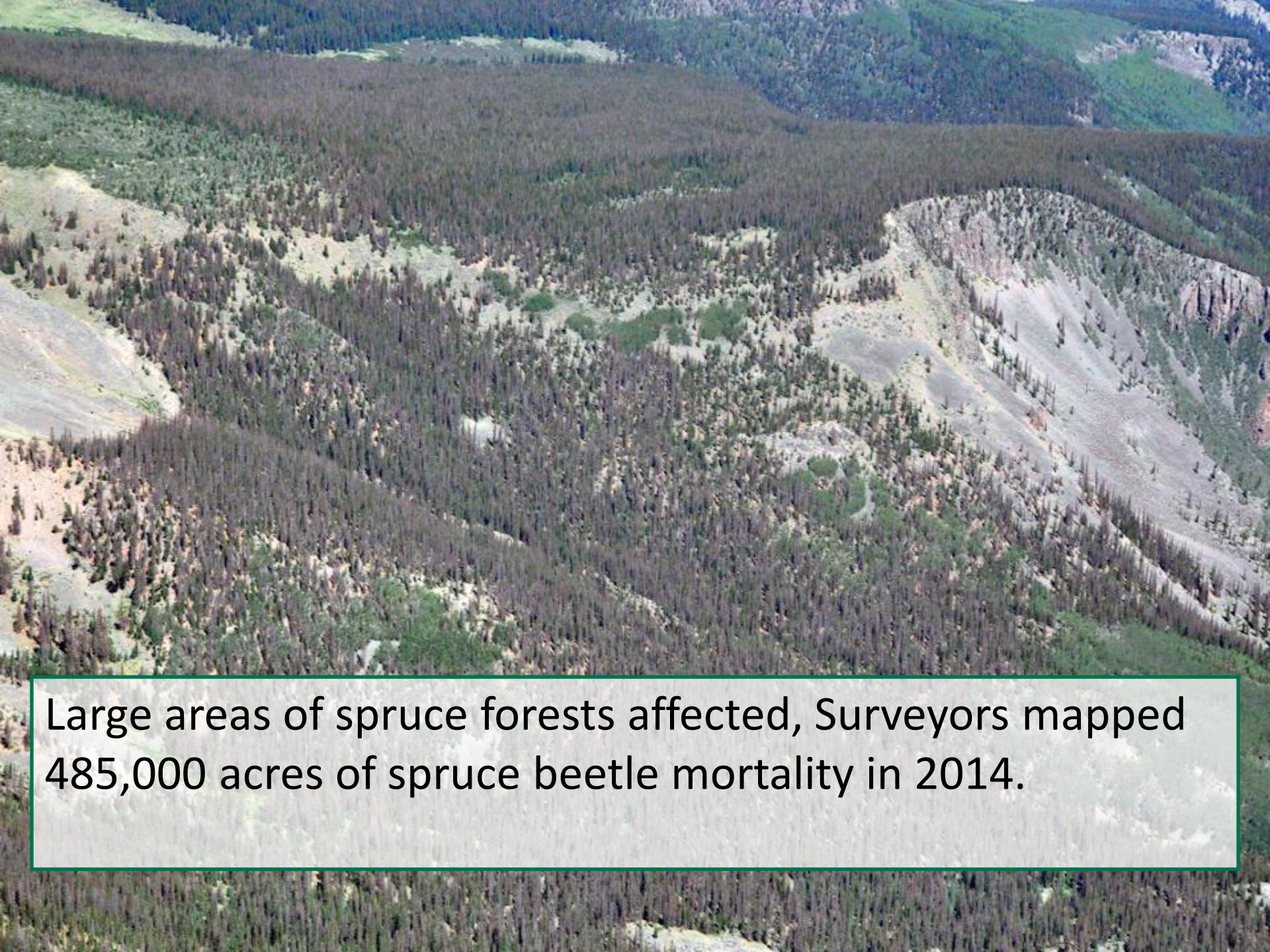
- Pure lodgepole pine stands not an artifact of fire suppression
- Fire suppression reduced the amount of age-class diversity
- Lack of diversity has led to older stands more susceptible to Mountain Pine Beetle outbreaks

Spruce-Fir forests

- Spruce beetle mortality doesn't appear to cause an increase in fire occurrence
- Fires driven primarily by drought and warm weather

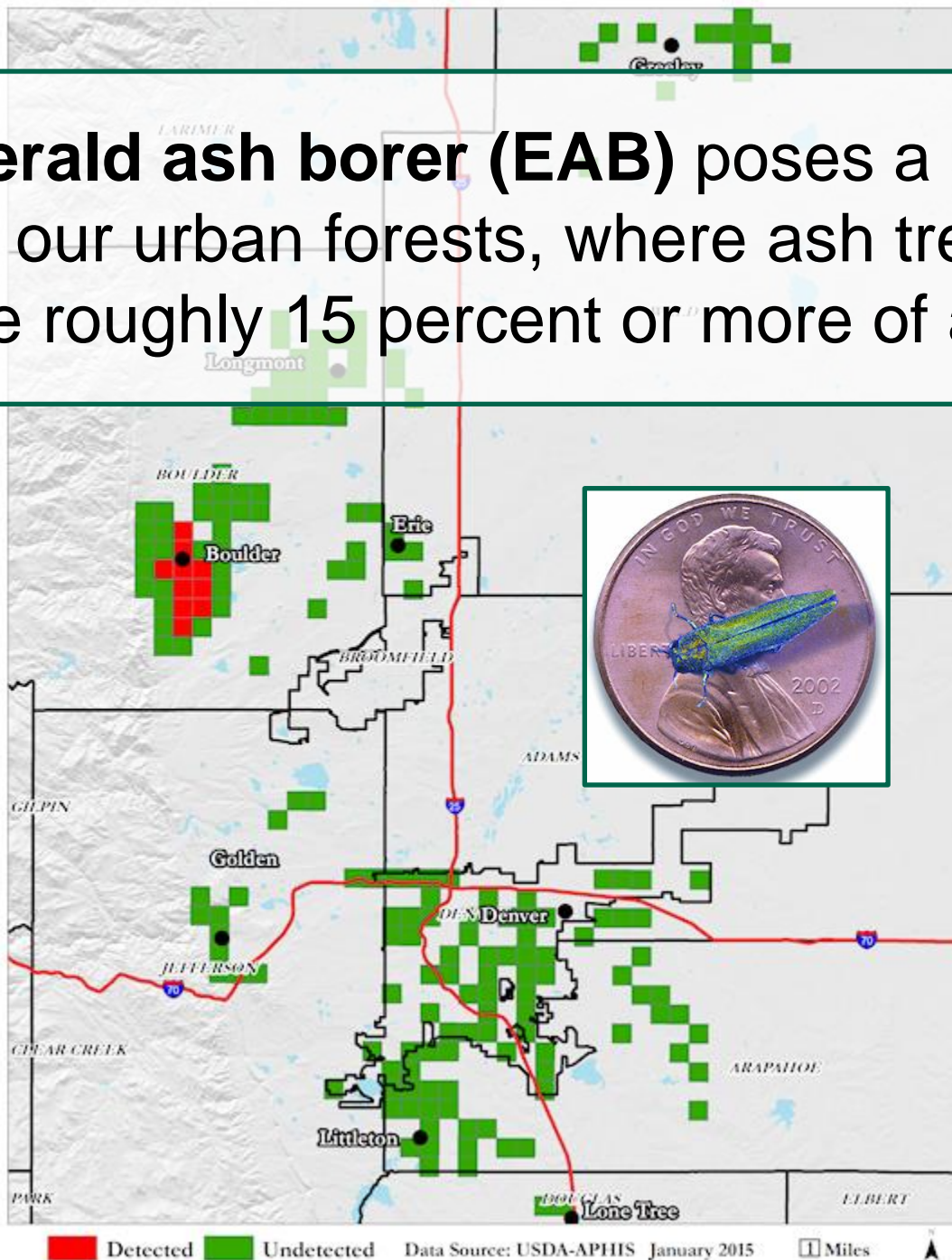
For the sixth straight year, spruce beetle was the most widespread insect pest of Colorado's forests, impacting **485,000 acres** of Engelmann spruce forest in 2014.





Large areas of spruce forests affected, Surveyors mapped 485,000 acres of spruce beetle mortality in 2014.

The **emerald ash borer (EAB)** poses a serious threat to our urban forests, where ash trees comprise roughly 15 percent or more of all trees.





The CSFS also **partners** with the Colorado Tree Coalition, the South Platte River Urban Waters Partnership and the EAB Response Team.

Other forest health threats

- Thousand cankers disease
- Douglas-fir beetle, Douglas-fir Tussock Moth, fir engraver beetle, western spruce budworm, and defoliating insects of quaking aspen including western tent caterpillar
- Other invasive species such as Russian Olive and Tamarisk

Climate Change Impact on Wildfires

- Can create the ideal conditions for large scale catastrophic wildfire.
 - High elevation spruce-fir forests burn under extreme climate conditions, hot and dry for extended periods of time
- In lodgepole pine forests, mountain pine beetle outbreaks were mitigated by extreme cold conditions

Climate Change Impact on Wildfires

- This combination of forests impacted by insects and disease along with warm and dry weather conditions is what we have experienced in Colorado for the last 15 – 20 years

Status of Timber Industry

- Timber industry is important to the health of Colorado's forests
 - Facilitates beneficial use of woody materials
 - Allows fuels to be removed from the forest
 - Allows dollars allocated for mitigation to be stretched further

Status of Timber Industry

- Timber industry in Colorado challenges
 - Geographic distribution of industry is uneven across state.
 - Not enough raw material for some mills.
 - No or limited markets for raw materials in other parts of the state
 - Difficult to acquire financial support
 - Inconsistent wood supply

Timber Industry Opportunities

- Utilization of biomass from dead and dying trees
- Salvage and restoration of our forests
- Increase of active management including pre-commercial thinning

Timber Industry Opportunities

- Reduce constraints affecting US Forest Service that would increase wood product flow
- Incentivize development of all market niches
- Create economic incentives for managing our available forest lands



Thank you.

To learn more, please call us: (970) 491.6303

You can also visit us on the web: <http://csfs.colostate.edu>

