



COLORADO STATE FOREST SERVICE – CURRENT & FUTURE TREATMENTS ON STATE & PRIVATE FOREST LANDS

Future Forests Summit

Agency Panel / Updates

Rich Edwards; Assistant Staff Forester, Forest Management Division

Conference presented by the Colorado Bark Beetle Cooperative

Friday 28 October 2011

Colorado Mountain College, Breckenridge Campus

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Colorado State Forest Service Vision:

To serve Colorado as the resource for technical forestry assistance and leadership.

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Colorado State Forest Service Mission:

To achieve stewardship of Colorado's diverse forest environments for the benefit of present and future generations.

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What We Do:

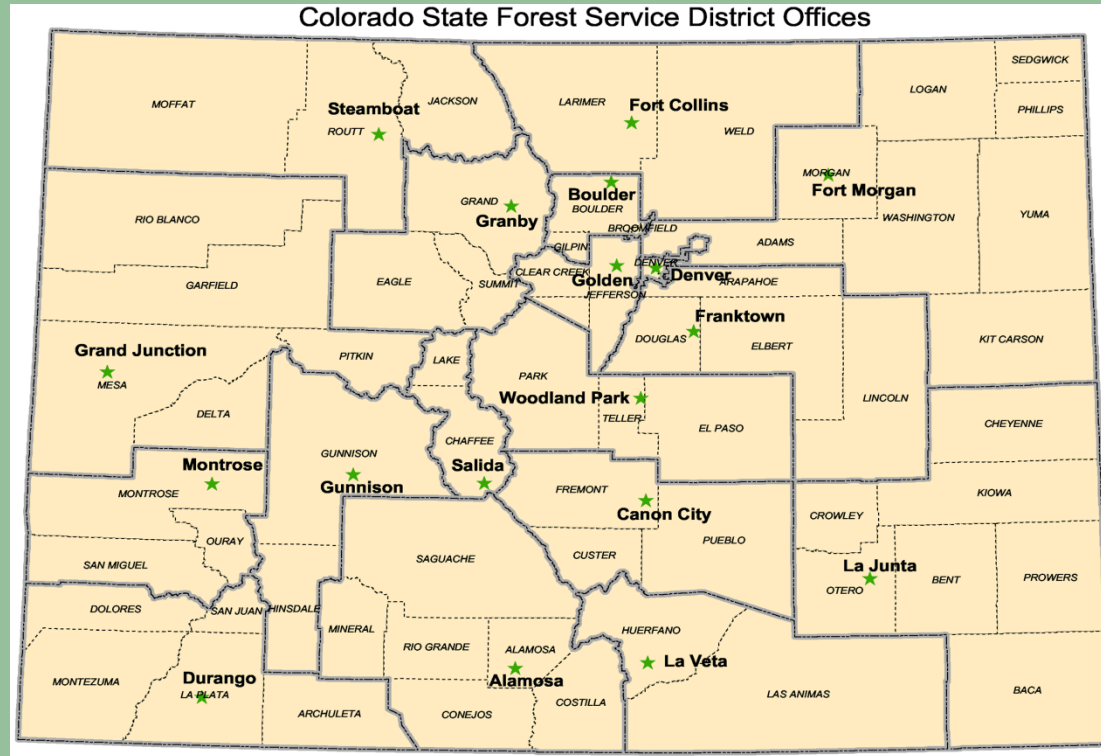
CSFS is a service and outreach agency of the Warner College of Natural Resources at Colorado State University. The agency also provides staffing to the Division of Forestry in the Colorado Department of Natural Resources.

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Statewide, CSFS serves 64 counties through 17 district offices located throughout the state.

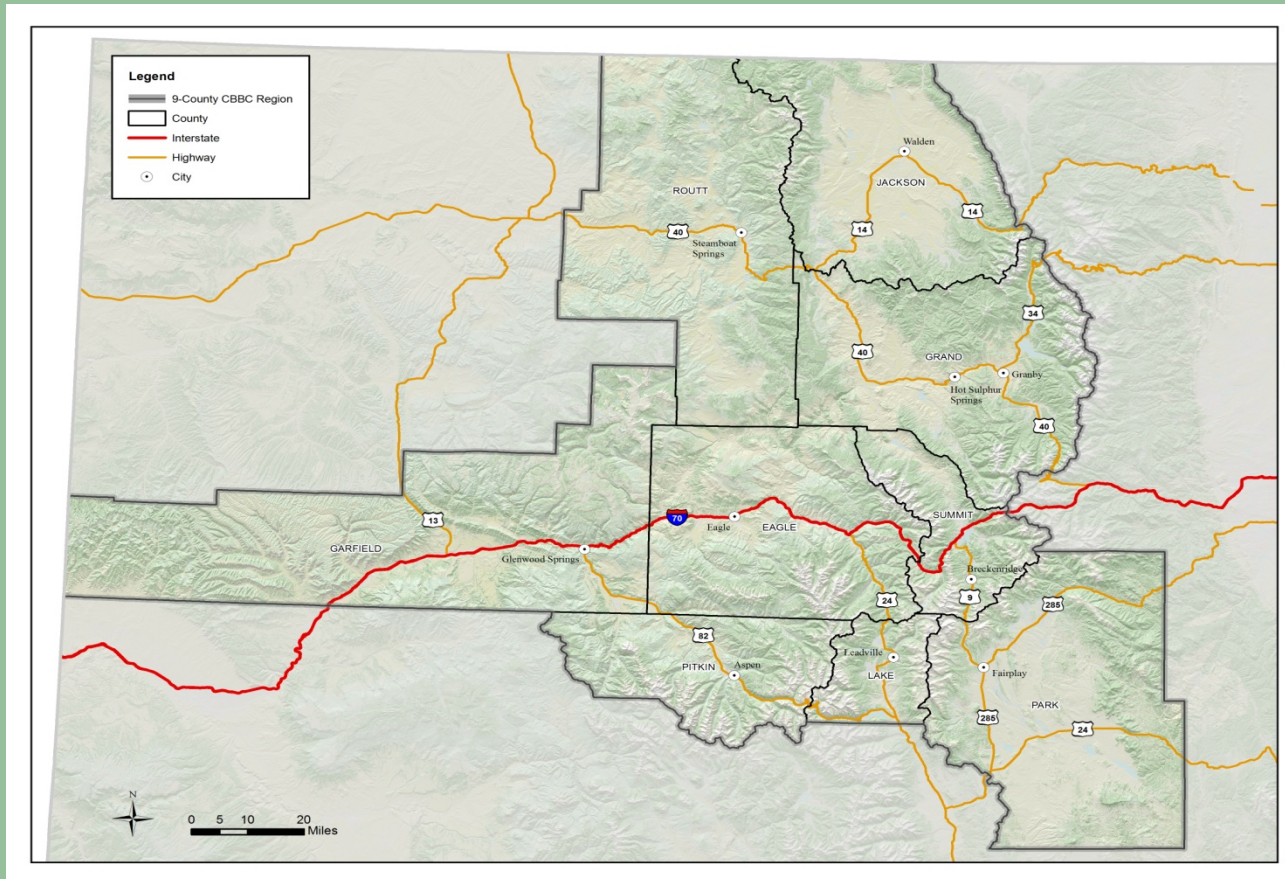


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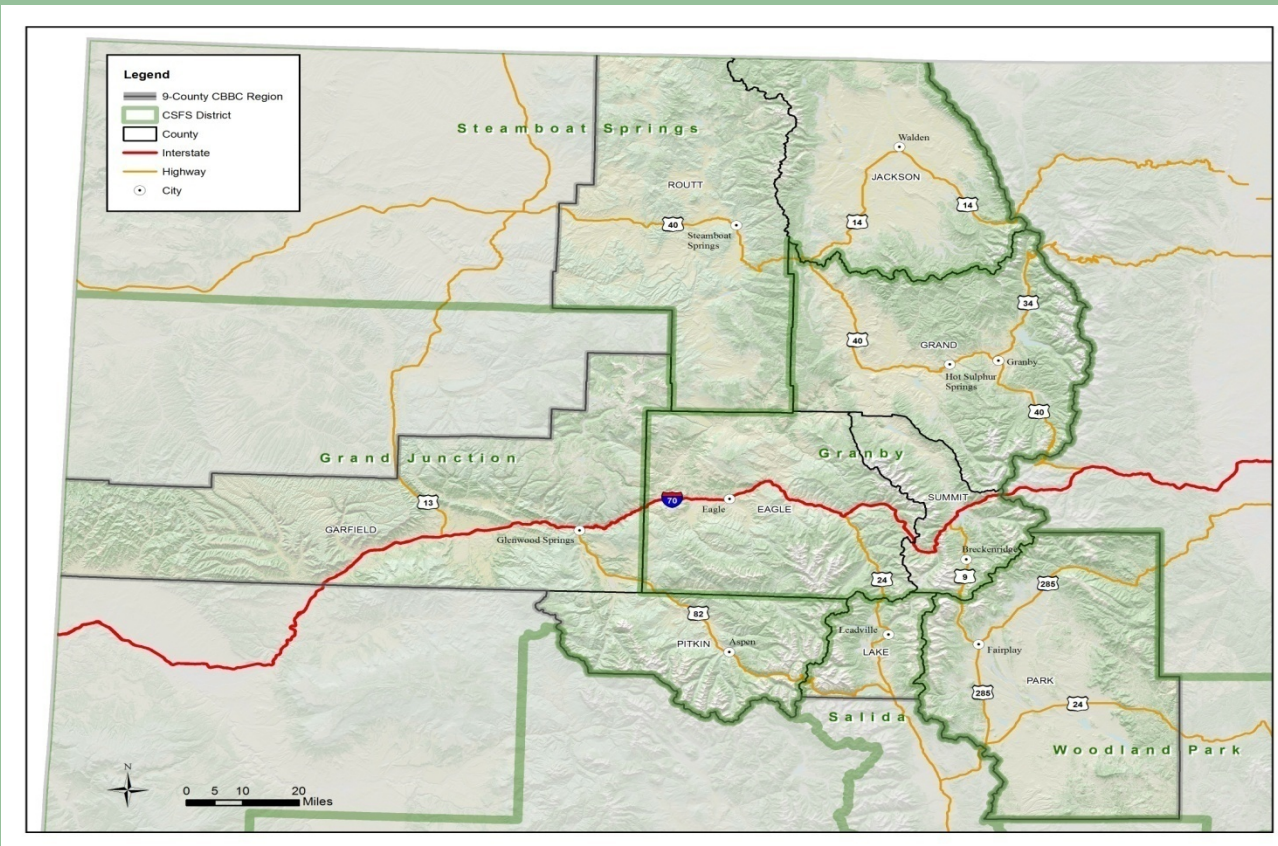


Map of the 9-county Colorado Bark Beetle Cooperative Region (Eagle, Garfield, Grand, Jackson, Lake, Park, Pitkin, Routt, and Summit):





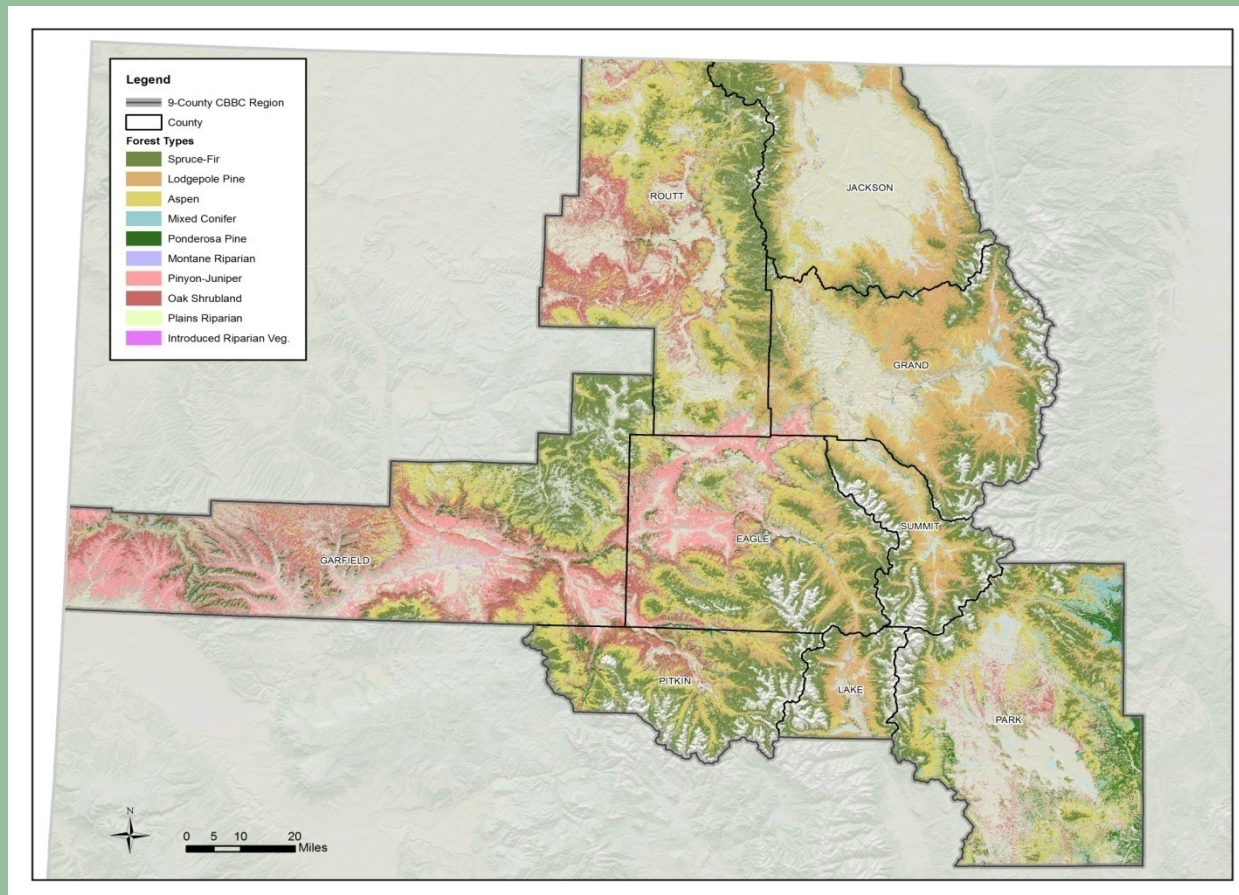
Map of the 9-county Colorado Bark Beetle Cooperative Region (Eagle, Garfield, Grand, Jackson, Lake, Park, Pitkin, Routt, and Summit) with CSFS (5) district boundaries:





Map of Forest Types within the 9-county CBBC region

(from the 2010 Colorado State Action Plan):





Statewide & CBBC Region Forested & Total areas and Percent Forested of Total Area

(from the 2010 Colorado State Action Plan):

	Forested Acres (millions)	Total Acres (millions)	Percent Forested of Total Area
Statewide	24.453	66.625	37
CBBC Region	5.937	9.397	63



Statewide & CBBC Region Percent Forest Types

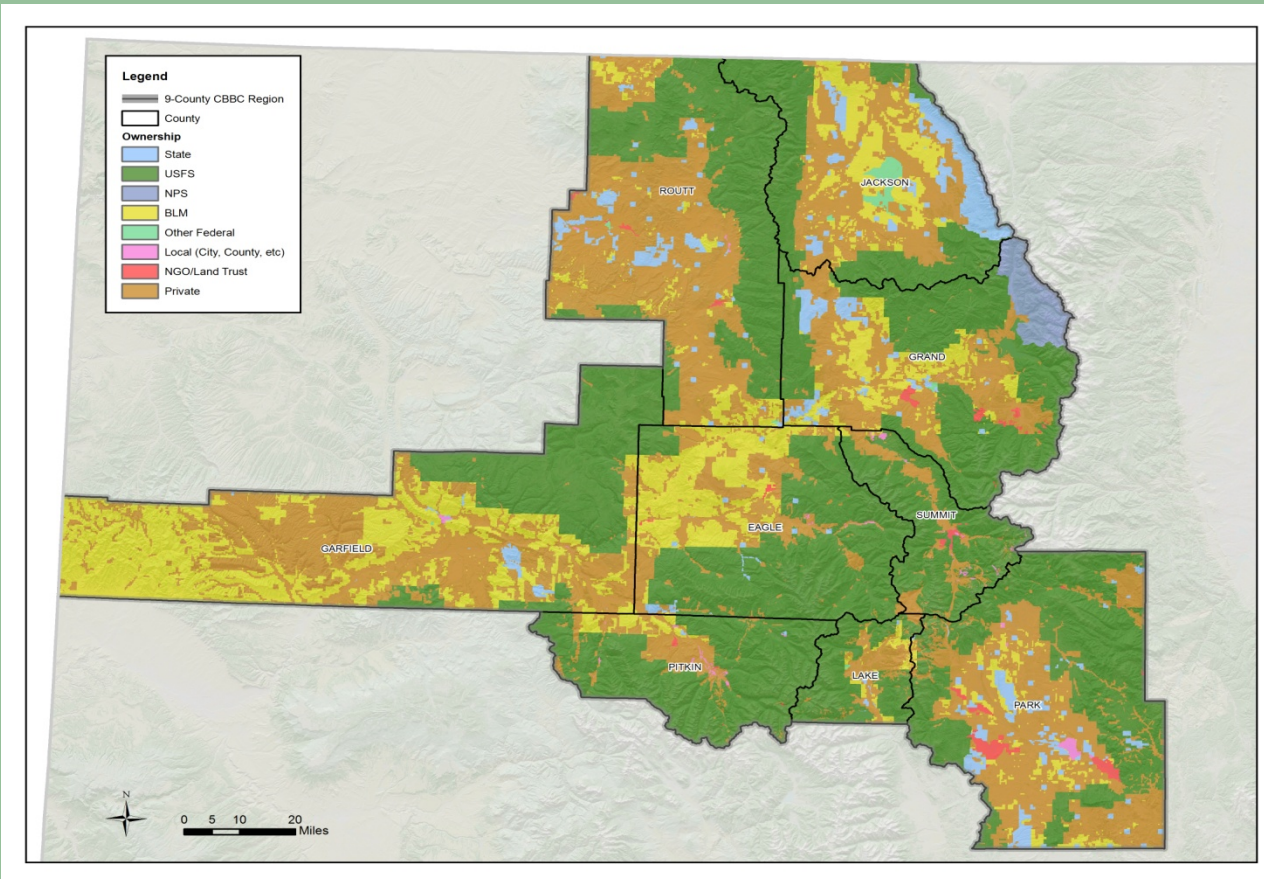
(from the 2010 Colorado State Action Plan) :

Forest Type	Statewide	CBBC Region
Spruce-fir	19	26
Lodgepole	7	15
Aspen	21	26
Mixed conifer	7	4
Ponderosa pine	10	5
All riparian	5	4
Piñon-juniper	21	8
Oak shrubland	10	12
SUM	100	100



Map of Ownership Category within the 9-county CBBC region

(from the 2010 Colorado State Action Plan):





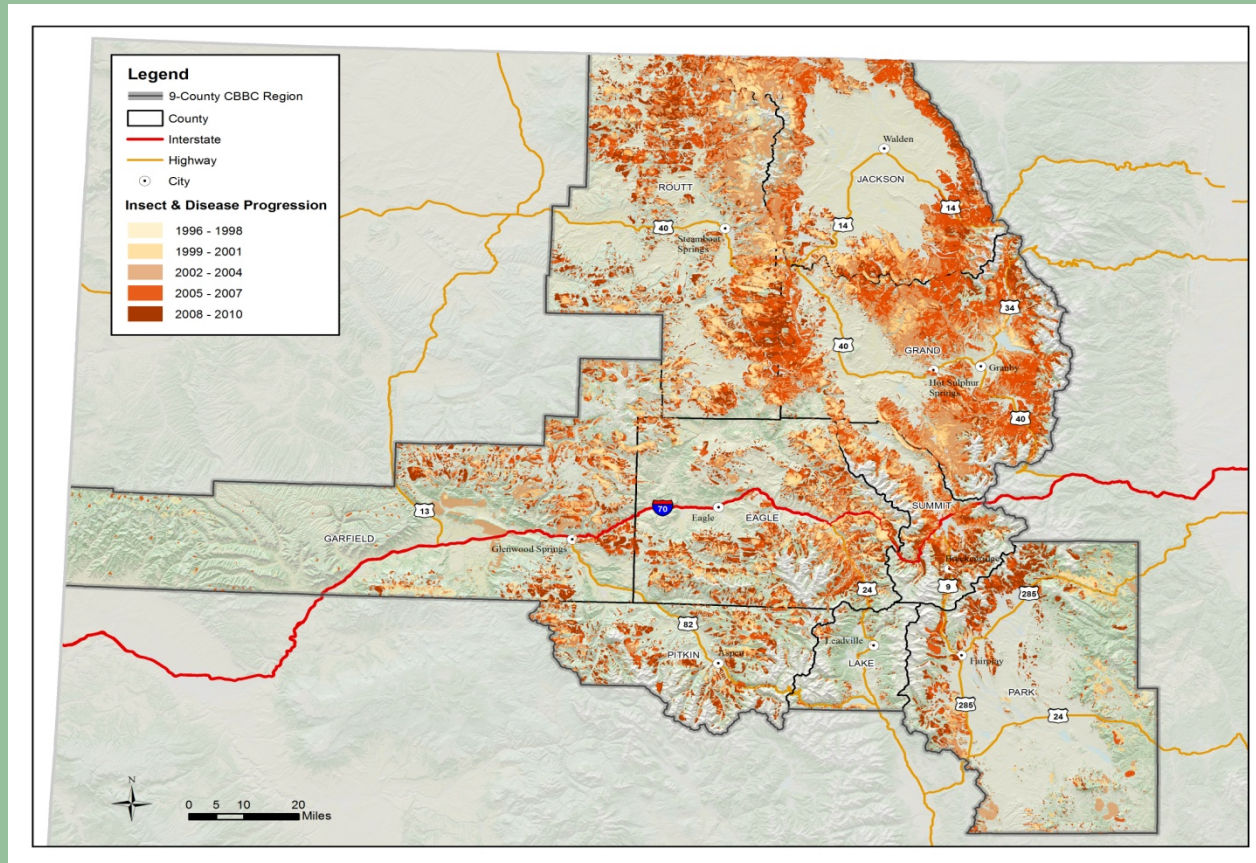
Statewide & CBBC Region Percent Land Ownership

(from the 2010 Colorado State Action Plan):

Owner	Statewide	CBBC Region
State	5	4
USFS	22	45
NPS	1	1
BLM	12	15
Other Federal	2	0.3
Local Gov't	0.6	0.2
NGO, Land Trust	0.4	0.5
Private	57	34
SUM	100	100



Map of Forest Insect & Disease Progression in Colorado from 1996-2010 within the 9-county CBBC region (from the 2010 Report on the Health of Colorado's Forests):



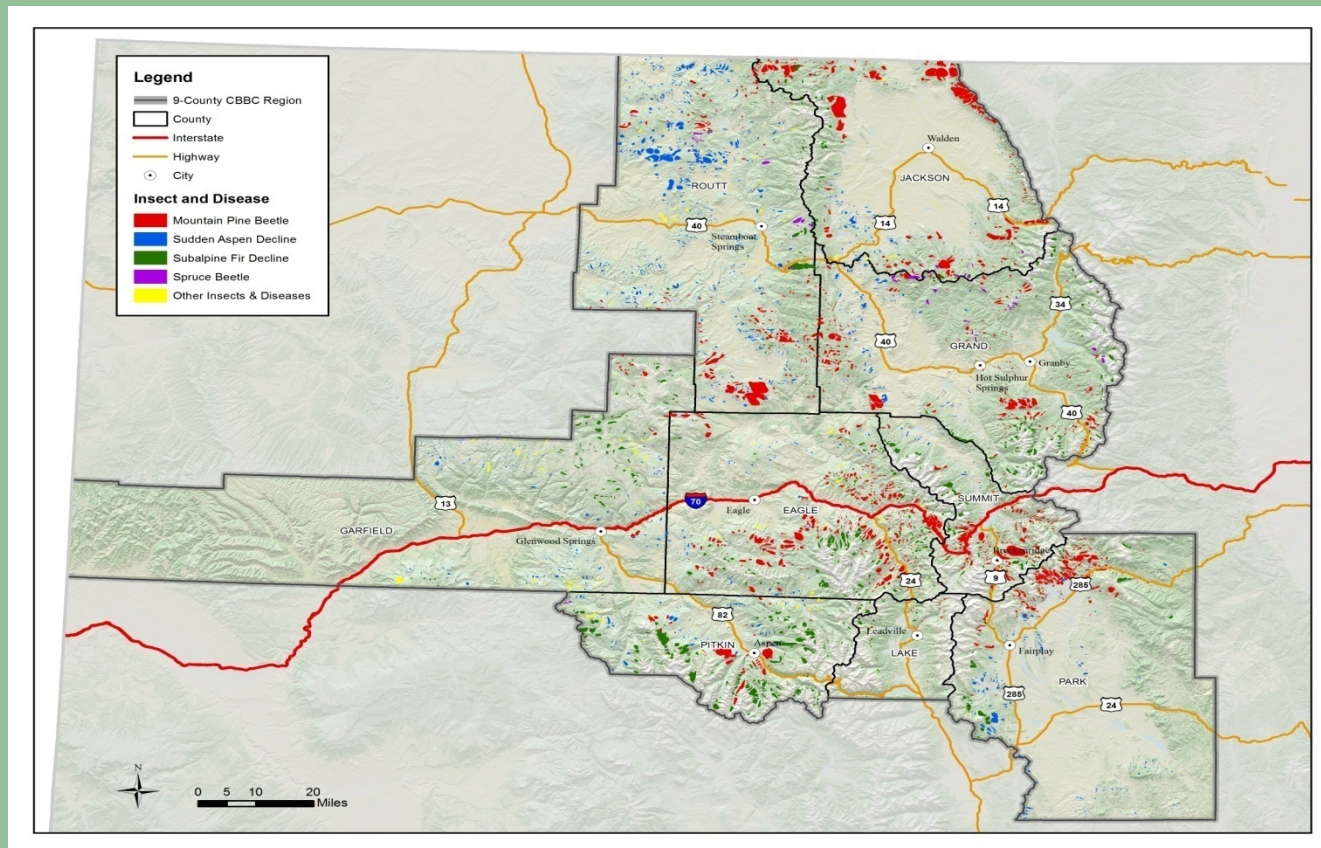


Statewide and CBBC Region Forest Insect & Disease Progression Inferences:

- In general, statewide mountain pine beetle (MPB) active infestation acres have decreased from 2009 to 2010 aerial forest health surveys (i.e. 1,046,000 to 878,000 acres).
- On the northern portion of the west slope of the divide, the MPB has basically run out of a food source due to past year's large areas of susceptible forests being impacted.
- MPB has moved to northern front range lodgepole pine and ponderosa pine; primarily in Larimer county and into southern Wyoming.
- Other causal agents remain significant in the CBBC region's forests (e.g. spruce beetle and sudden aspen decline).



Map of 2010 Insect & Disease Activity in Colorado Forests within the 9-county CBBC region (from the 2010 Report on the Health of Colorado's Forests):





Statewide & CBBC Region 2010 Area Affected by Insects & Diseases -Acres (% of total); (from 2010 Aerial Detection Survey for the Rocky Mountain Region):

Causal Agent	Statewide	CBBC Region
Mountain Pine Beetle	878,000 (49%)	208,092 (53%)
Spruce Beetle	208,000 (12%)	10,890 (3%)
Western Spruce Budworm	213,000 (12%)	30 (<1%)
Sudden Aspen Decline	190,000 (11%)	74,610 (19%)
Subalpine Fir Decline	265,000 (15%)	94,000 (24%)
Other	37,000 (2%)	1,780 (<1%)
Total	1,791,000	389,402





Colorado Bark Beetle Cooperative
 28 October 2011 Future Forests Summit
 CSFS state and private acres treated in all forest types by county
 Treatments include all fire, health, and other landowner assists and
 management activities.

County	Actual Acres Treated 2008	Actual Acres Treated 2009	Actual Acres Treated 2010	Projected Acres Treated 2011	Projected Acres Treated 2012	Projected Acres Treated 2013
Eagle	27	104	50	200	300	300
Garfield	2	18	134	50	50	50
Grand	2447	1272	1294	1400	900	900
Jackson	56	1040	303	700	700	700
Lake	86	103	4	60	60	60
Park	997	1131	759	900	900	900
Pitkin	1	25	101	250	250	250
Routt	650	1426	710	900	900	900
Summit	334	530	266	600	600	600
SUM	4600	5649	3621	5060	4660	4660





Treatment Acreages & Priorities:

- ❑ On average 4708 acres per year are tracked and treated in the 9-county CBBC region on state & private forest with grant funding and/or landowner assistance. Statewide approximately 20,000 treated acres per year on average are tracked.
- ❑ Currently there are no mechanisms in place to track other private forest management activities that occur without grant funding and/or landowner assistance.
- ❑ Informal district surveys say CSFS tracked figures represent only 33-50% of total private acres being treated.
- ❑ 2010 ff acres treated are being prioritized utilizing the “State Action Plan”.



State Action Plan (Statewide Forest Resource Assessment & Strategy)

- Mandated by the US Forest Service (USFS) and contained in the Forestry Title of the 2008 Farm Bill.
- Statewide Assessments are a key component of the USFS State & Private Forestry (S&PF) Redesign Initiative that was launched in 2008.
- Provides a science-based foundation to assist state forestry agencies and their partners in 1) ID'ing the areas of greatest need & opportunity for forests across their states, and 2) developing a subsequent long-term strategy to address these areas.



State Action Plan 3 National Themes

- **Conserve Working Forest Lands**
- **Protect Forests from Harm**
- **Enhance Public Benefits from Trees and Forests**

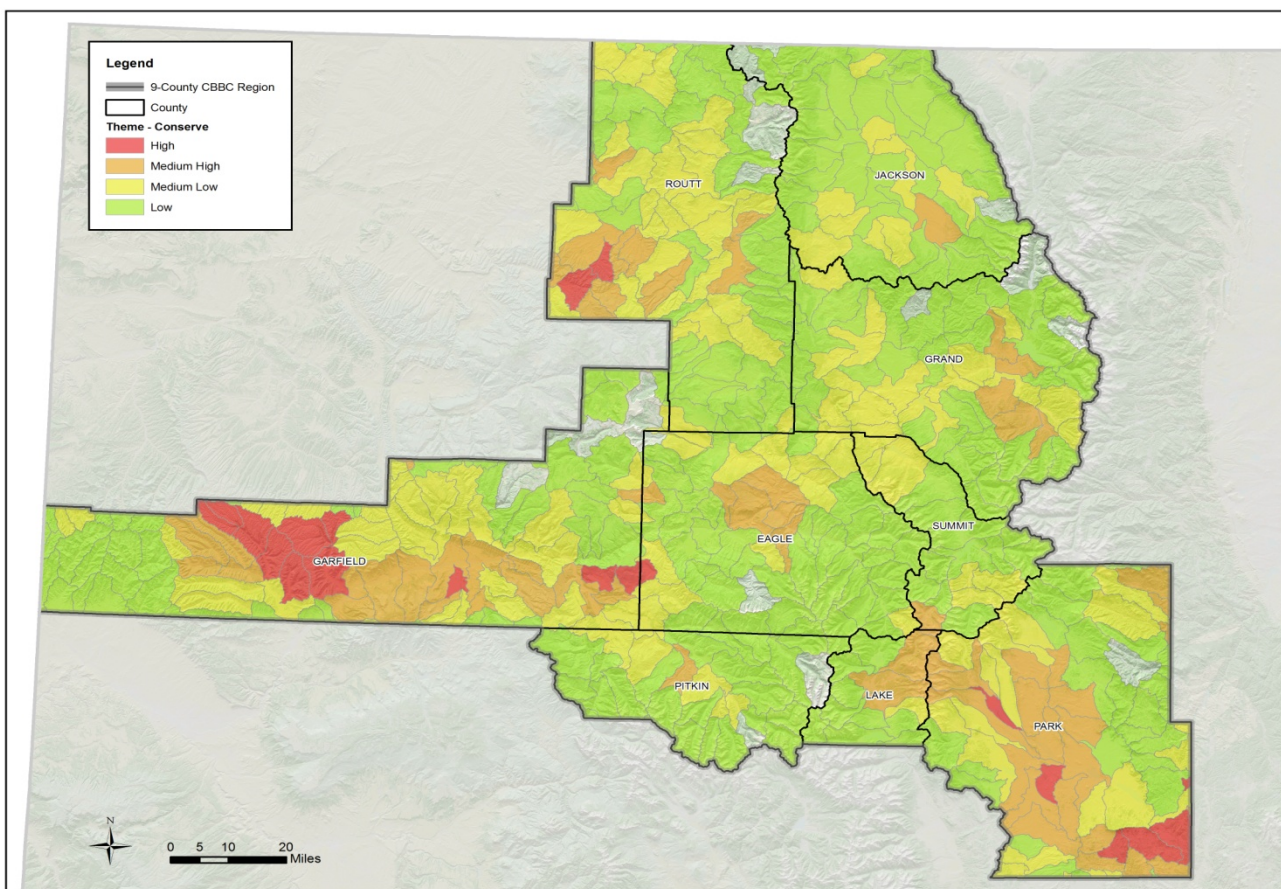


Conserve Working Forest Lands Data Set Layers

- Change in Degree of Human Modification
- ID & Conserve High Priority Forest Ecosystems & Landscapes (2006 Forest Legacy Analysis)
- Actively & Sustainably Manage Forests (Spatial Analysis)



Conserve Working Forest Lands Theme Map in the CBBC Region (Aggregated to HUC 12 - 6th level sub-watersheds; from 2010 State Action Plan):





Conserve Working Forest Lands Theme Medium High & High Watershed Acreages by Owner In CBBC Region

(from 2010 State Action Plan):

Owner	Acres	% of Total
All	1,675,507	18
Private	1,158,659	12
State	37,537	<1
CBBC Region Total Acreage	9,402,836	



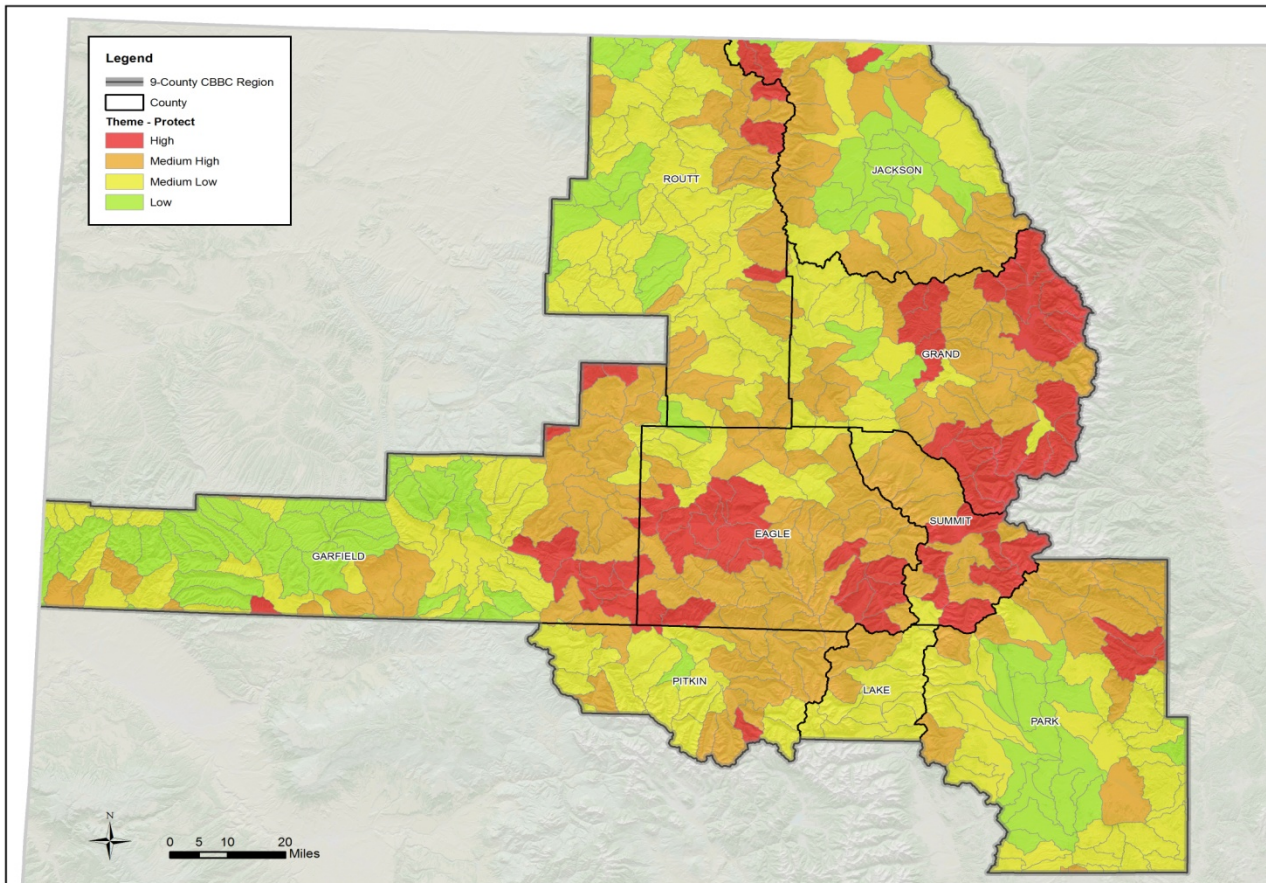
Protect Forests from Harm

Data Set Layers

- Wildfire Susceptibility Index (Sanborn Map Co.)
- Wildfire Intensity Index (USFS FlamMap)
- Insect & Disease Mitigation Potential



Protect Forests from Harm Theme Map in the CBBC Region (Aggregated to HUC 12 - 6th level sub-watersheds; from 2010 State Action Plan):





Protect Forests from Harm Theme Medium High & High Watershed Acreages by Owner in CBBC Region

(from 2010 State Action Plan):

Owner	Acres	% of Total
All	4,587,028	48
Private	963,508	10
State	57,869	<1
CBBC Region Total Acreage	9,402,836	



Enhance Public Benefits from Trees and Forests Data Set Layers

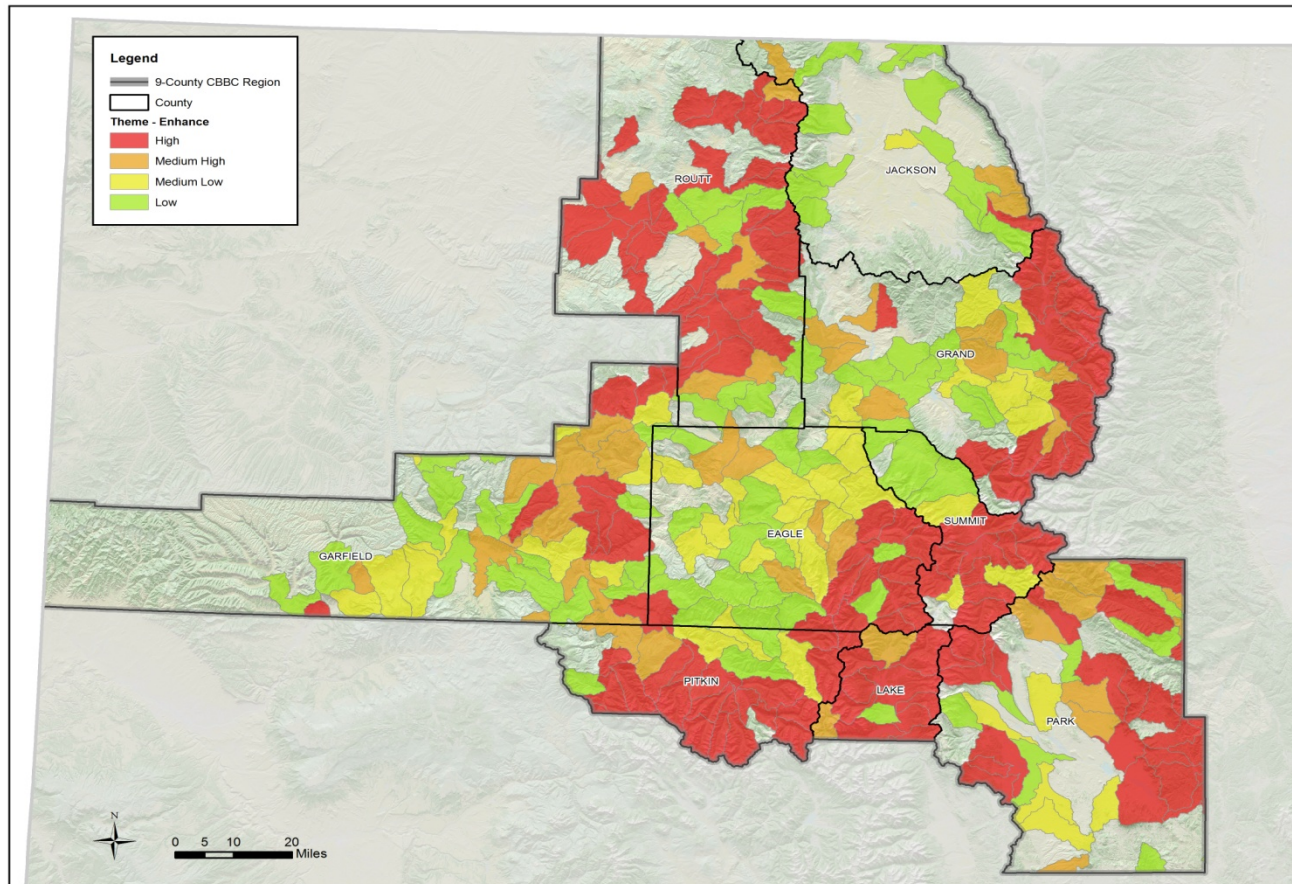
- Potential for post-fire erosion risk in important watersheds for drinking water
- Habitat for imperiled wildlife species
- Habitat for economically important wildlife species
- Density of recreation opportunity
- Wildland-urban interface

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Enhance Public Benefits from Trees & Forests Theme Map in the CBBC Region (Aggregated to HUC 12 - 6th level sub-watersheds; from 2010 State Action Plan):





Enhance Public Benefits from Trees & Forests Theme Medium
High & High Watershed Acreages by Owner in CBBC Region
(from 2010 State Action Plan):

Owner	Acres	% of Total
All	3,640,707	39
Private	994,790	11
State	121,477	1
CBBC Region Total Acreage	9,402,836	

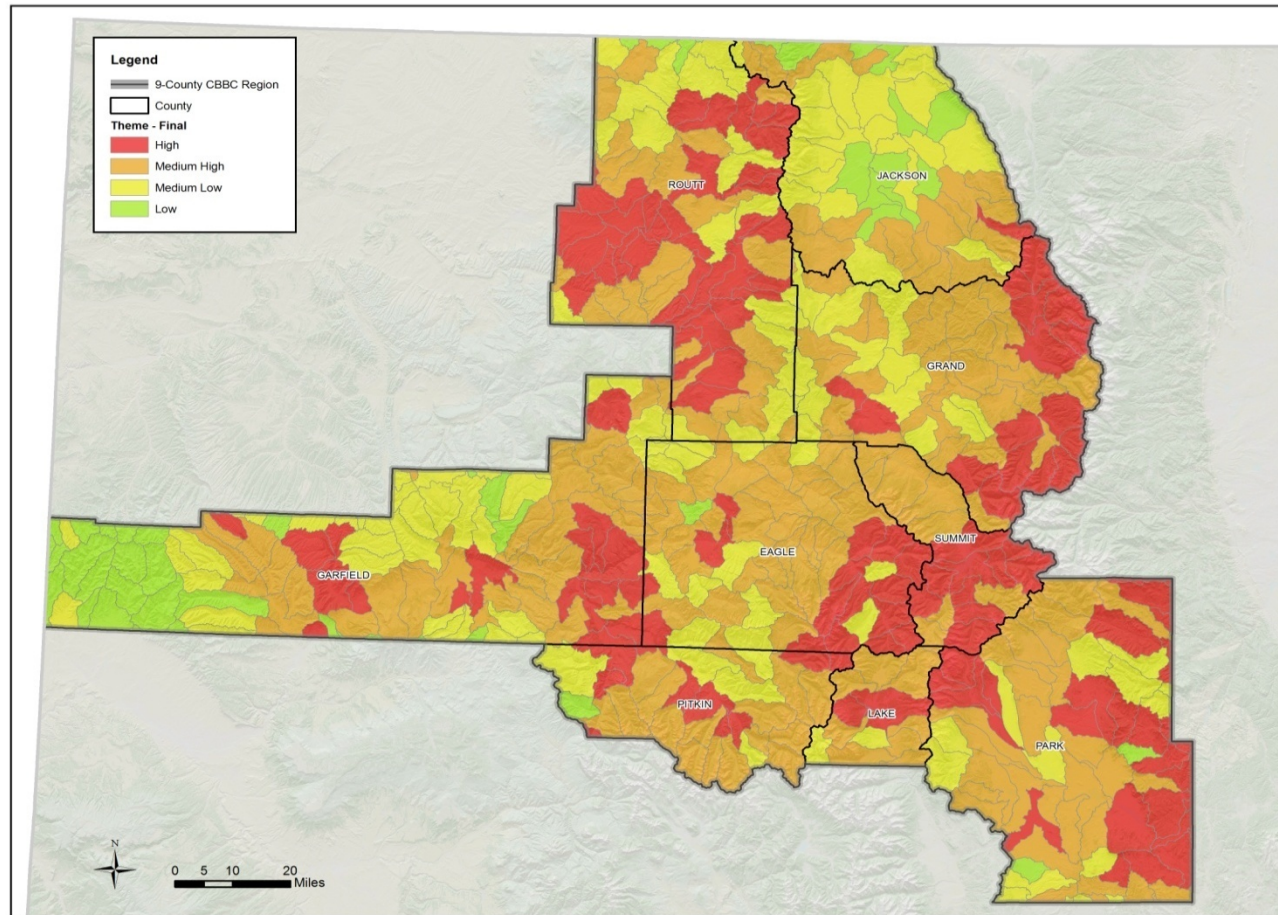


Final – Input Themes Weighted Equally

- State Action Plan is maintained as a living document; new data and information can be incorporated as it becomes available.
- US Forest Service State & Private Forestry national guidance allows flexibility for individual states to determine appropriate data and methods to combine the data.
- Currently selected data combinations, we believe, represent the best possible method for Colorado to address the three identified National themes.



Final – Input Themes Weighted Equally in the CBBS Region (Aggregated to HUC 12 – 6th level sub-watersheds; from 2010 State Action Plan) :





Final – Input Themes Weighted Equally Medium High
& High Watershed Acreages by Owner in CBBC Region
(from 2010 State Action Plan):

Owner	Acres	% of Total
All	6,547,264	70
Private	2,449,772	26
State	180,922	2
CBBC Region Total Acreage	9,402,836	



Threats identified by strategy and grouped by National Theme that need to be addressed on a statewide basis:

CONSERVE working forest landscapes

- Fragmentation of forest landscapes & their conversion to non-forest uses
- Loss of forest products manufacturing capacity

PROTECT forests from harm

- Unprecedented levels of forest insect & disease activity
- Threat of wildfire in the wildland-urban interface
- Threat of wildfire outside the wildland-urban interface
- Community forests at risk to insects and diseases

ENHANCE public benefits from trees & forests

- Forest resiliency and adaptability at risk due to changing climatic conditions
- Declining forest watershed health
- Declining riparian ecosystems
- Air quality issues associated with forest conditions



IN CONCLUSION:

Colorado's future forests will be shaped by the decisions we make now. The challenge is to develop a clear vision of our desired future condition and then work together to direct resources that will achieve that condition. This will require a long-term commitment that involves monitoring and adapting strategies as conditions change.



Quote for the day:

“Skate to where the puck is going, not where it’s been”

- Wayne Gretzky



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