

Assessing Limber Pine Condition Along the Rocky Mountain Front

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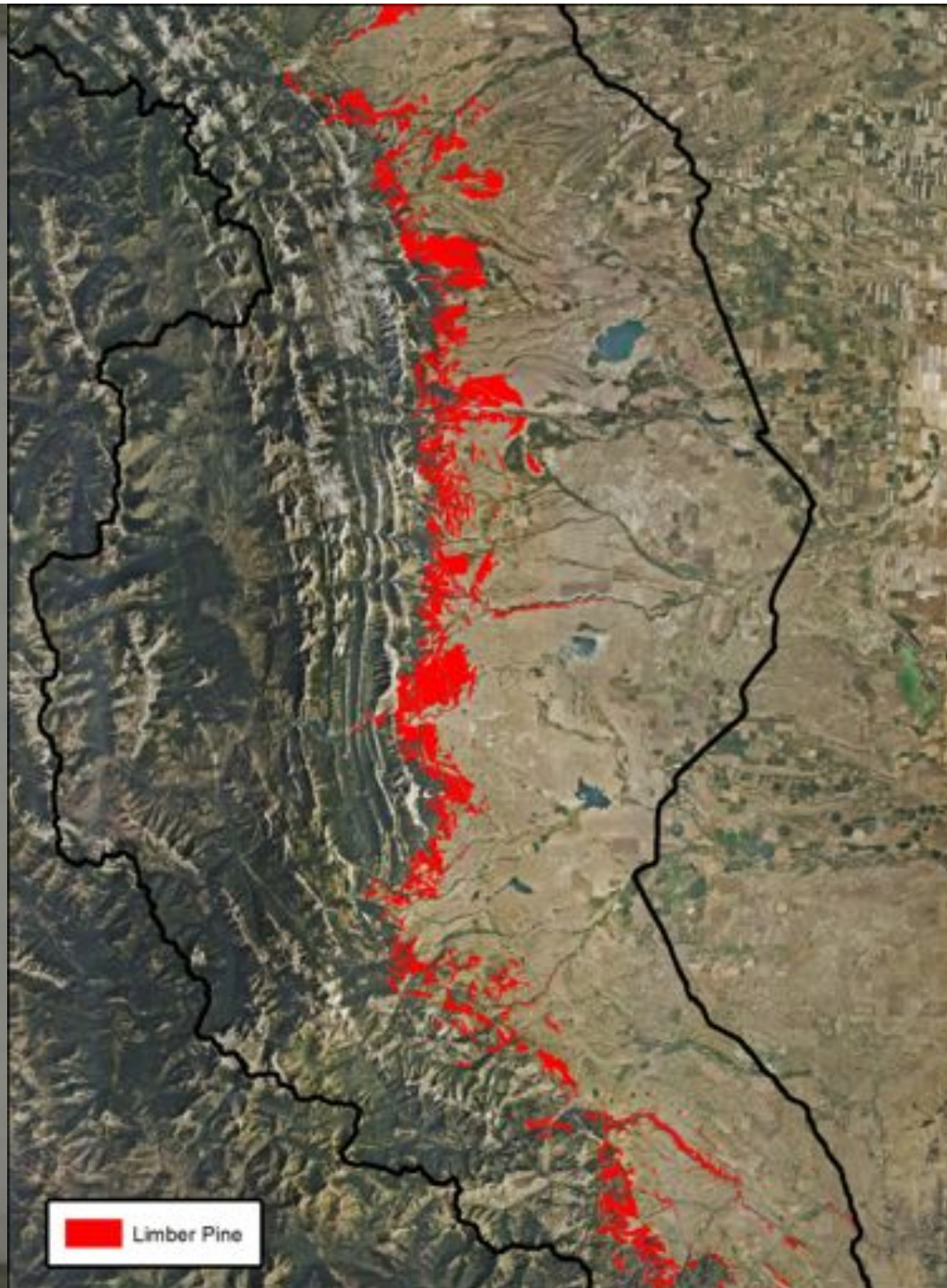






FIG. 5



Plate 19a (1900) Fire Group 1: Dry limber pine. Elevation 4,900 ft (1 494 m)

From the foothills east of Castle Reef on Rocky Mountain Front the view is south across an open limber pine type toward Sawtooth Ridge on Sun River Game Range. Limber pine is largely confined to ridges and rocky sites where fine fuels were sparse. Fire-scarred snags and scarred living trees indicate wildfires had a significant influence on this landscape prior to settlement. Following settlement, trees were lightly harvested in the immediate area.

USGS photograph 663a by C. D. Walcott.



Plate 19b (September 17, 1981) 81 years later

Limber pine are more dense along ridges and have become established on concave slopes and bottomlands. Distant slopes show extent of conifer regeneration south of the Sun River pictured in plate 13b.

Photograph by G. E. Gruell.





Dothidea needle cast fungus



Mountain pine beetle



White pine blister rust



Dothidea needle blight fungus









SFS Forest Health Monitoring Program

Funds DNRC Forest Pest Management Program

- Evaluate and monitor forest health conditions
- Annual Forest Health Highlights report

Evaluation Monitoring Grants

- Special funds awarded for specific projects
- Submitted proposal to survey condition of limber pine along Front Range
- Logistical challenges with grants (match, timing, project duration)

Collaborative Effort

Proposal development → shared interest and need

Project partners: The Nature Conservancy, DNRC, Forest Service, BLM

Partners combining resources

- Data (GIS layers) and analysis
- Field personnel
- Housing
- Landowner contacts, access
- Funding

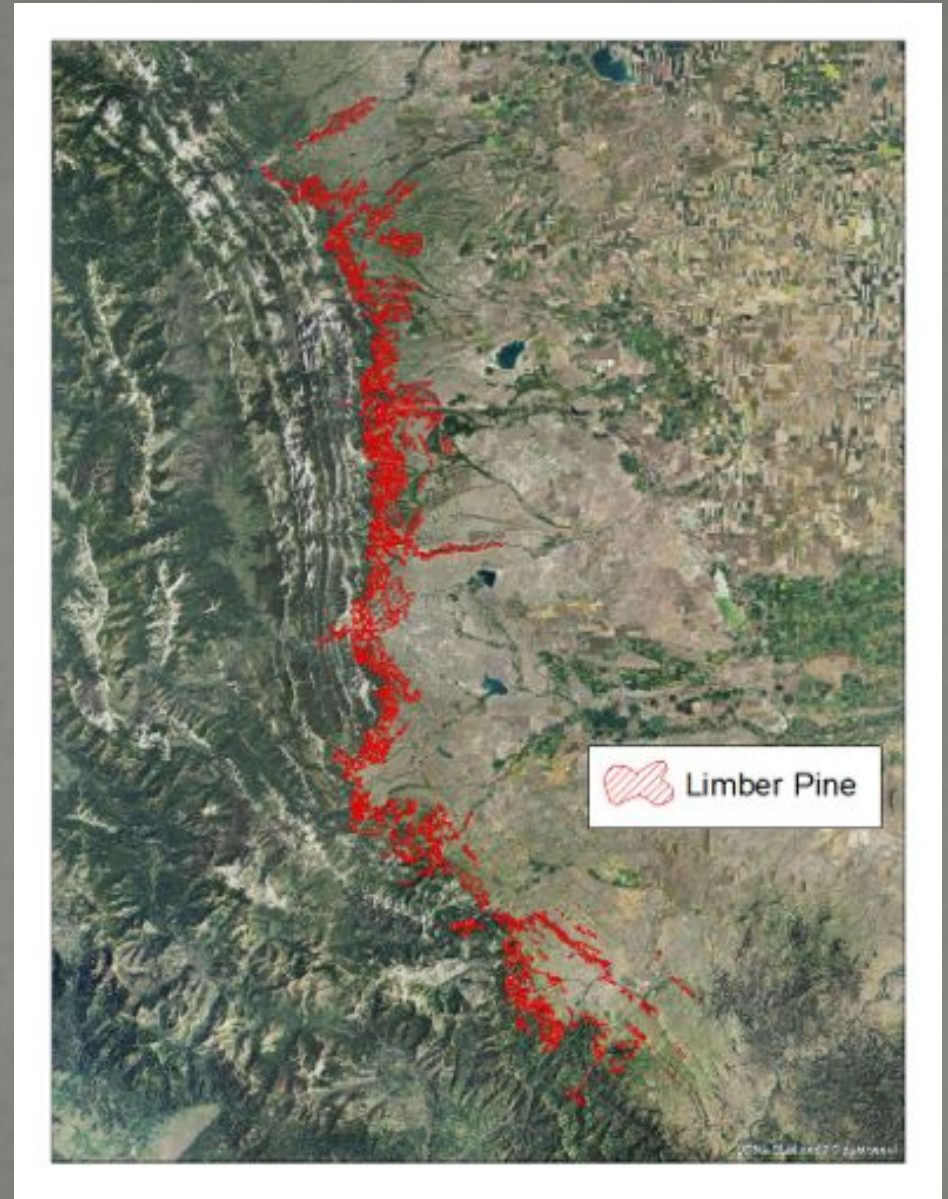
Limber Pine Survey – Where to Collect the Data

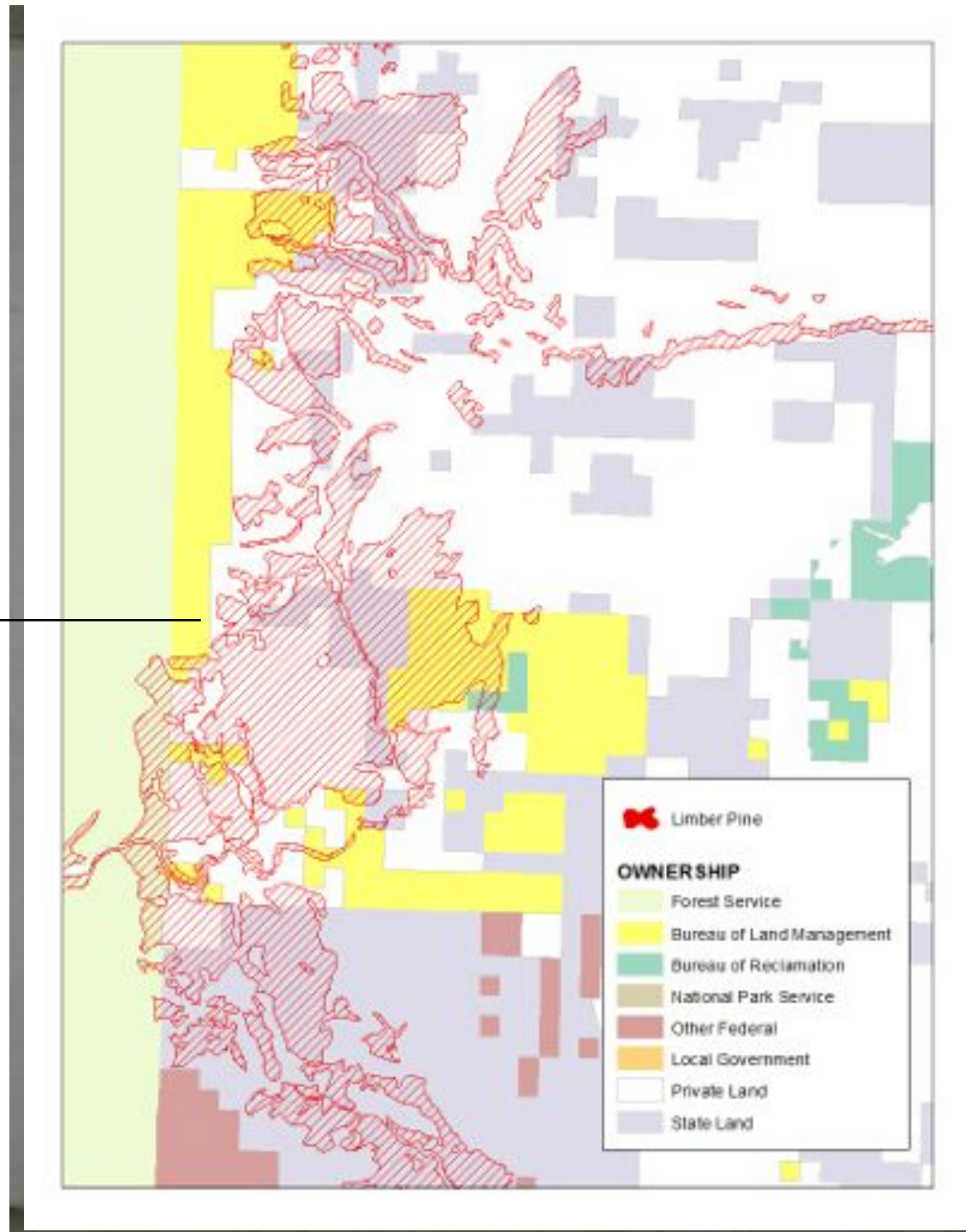
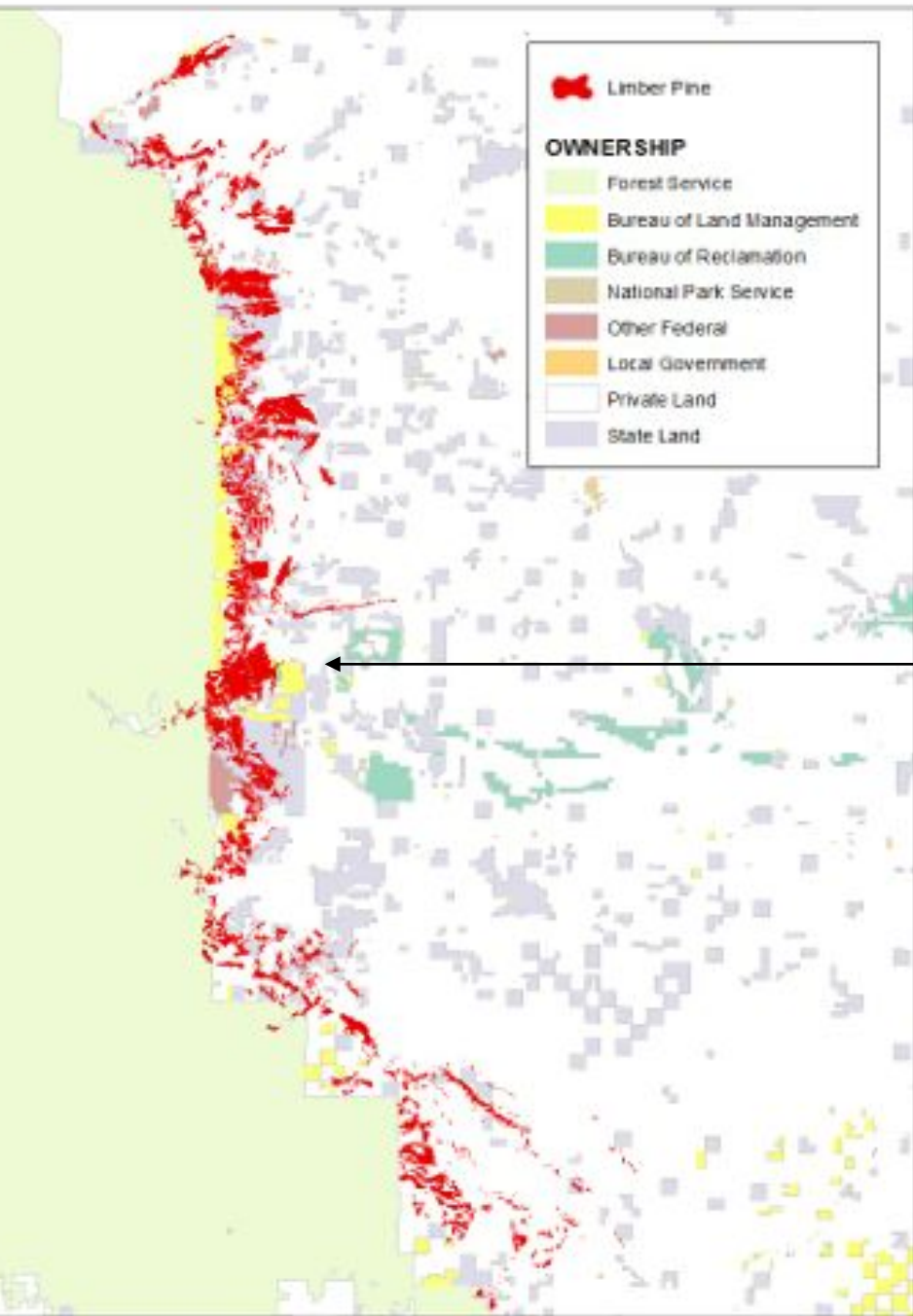


Area of Interest

From Highway 200 to US
Highway 2 – along the Rocky
Mountain Front

Limber pine distribution map
provided by The Nature
Conservancy





Plot Location

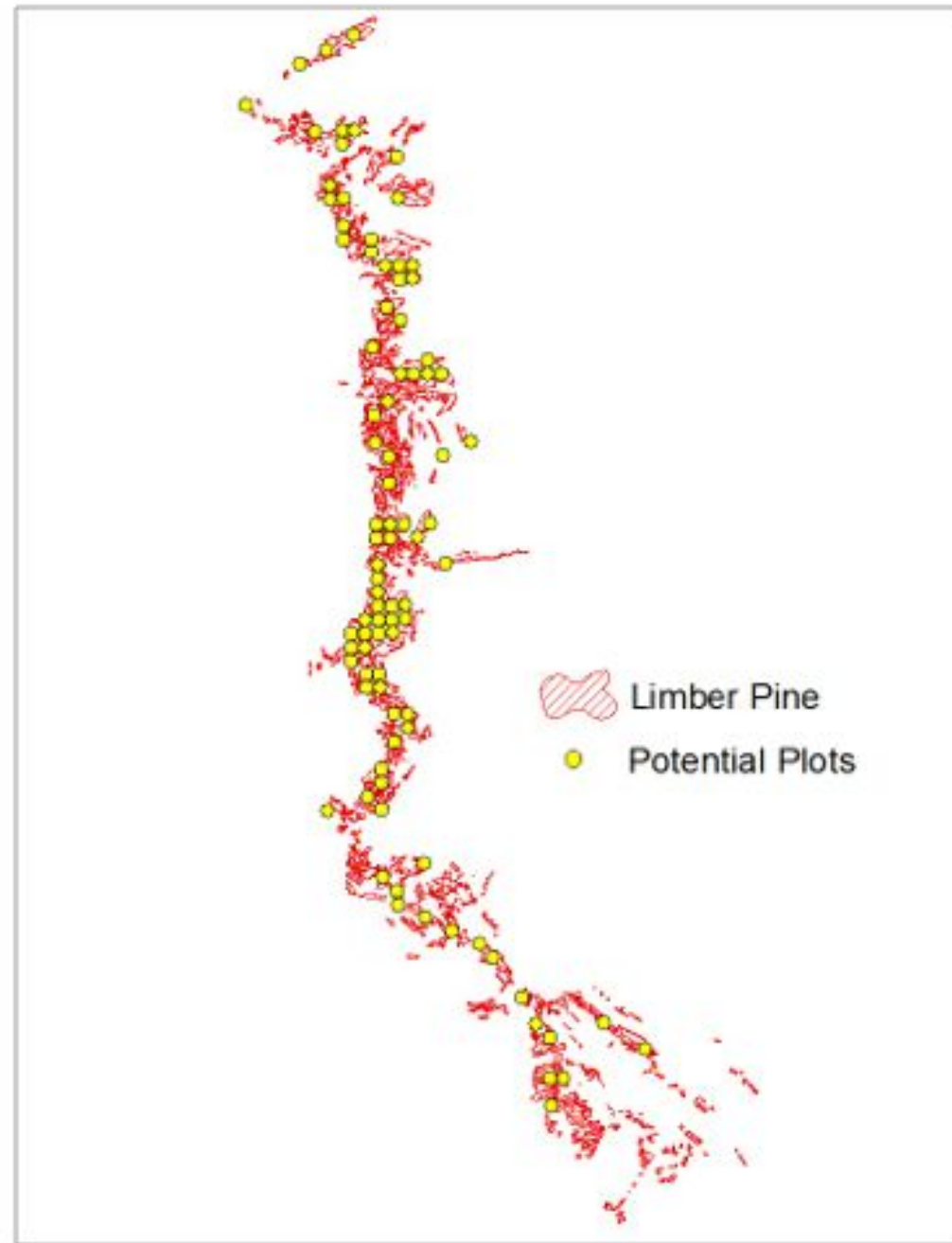
Systematic grid of plots using
Region One Plot Locator (ROPL)

Goal – 75 plots

Representative of precipitation,
elevation, and soil type range

Representative of variable stand
conditions

- **Densely stocked, contiguous stands along the western boundary**
- **Small, discontinuous, eastern-most stands**



Land Ownership & Plot Distribution

Land Ownership

- Montana Department of Natural Resources and Conservation
- Montana Fish, Wildlife & Parks
- USDI Bureau of Land Management
- USDA Forest Service
- The Nature Conservancy
- Private

Plot Distribution

- State Land ~34%
- Federal Land ~16%
- Private Land ~50%