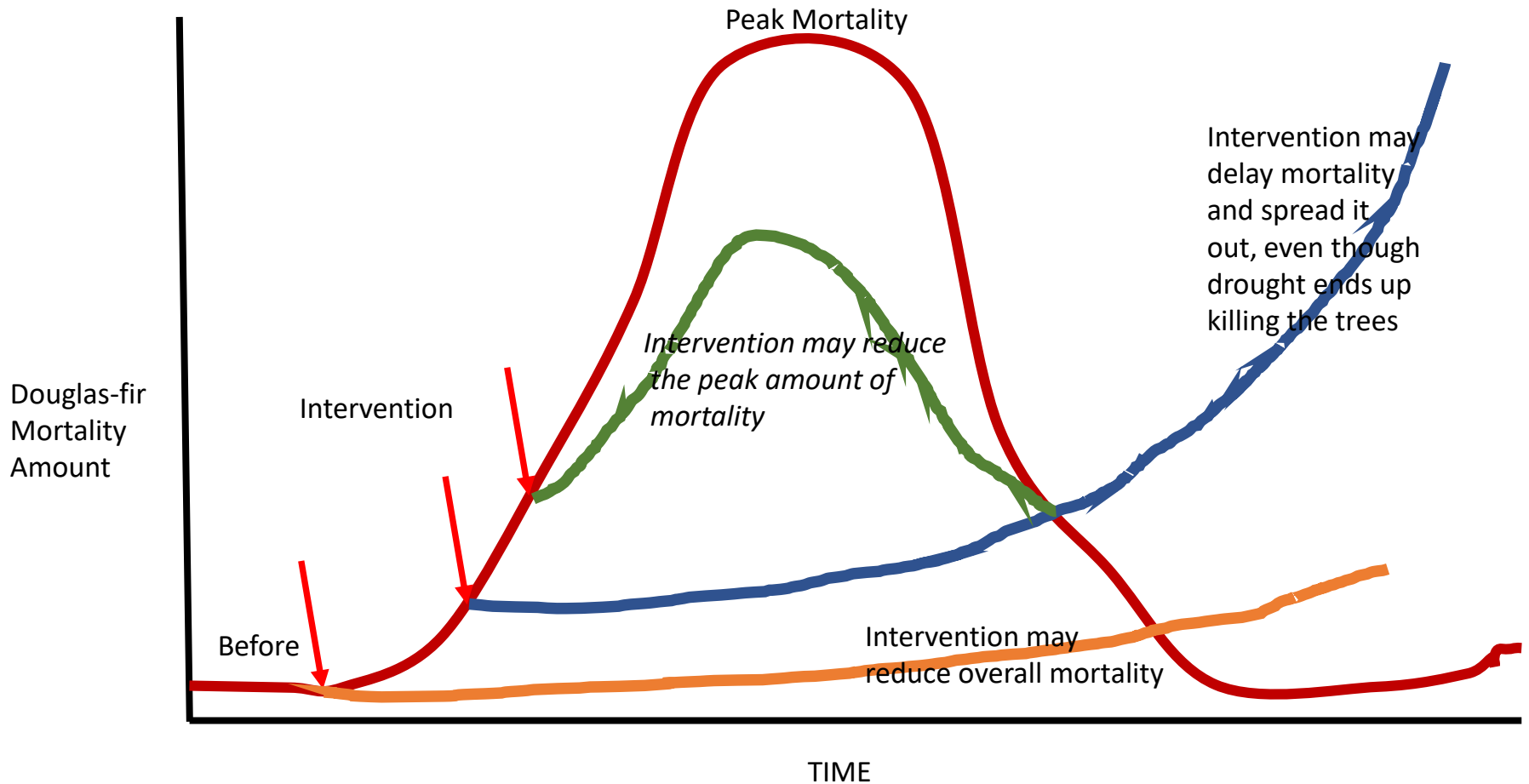


Stand management options & considerations in high risk zones

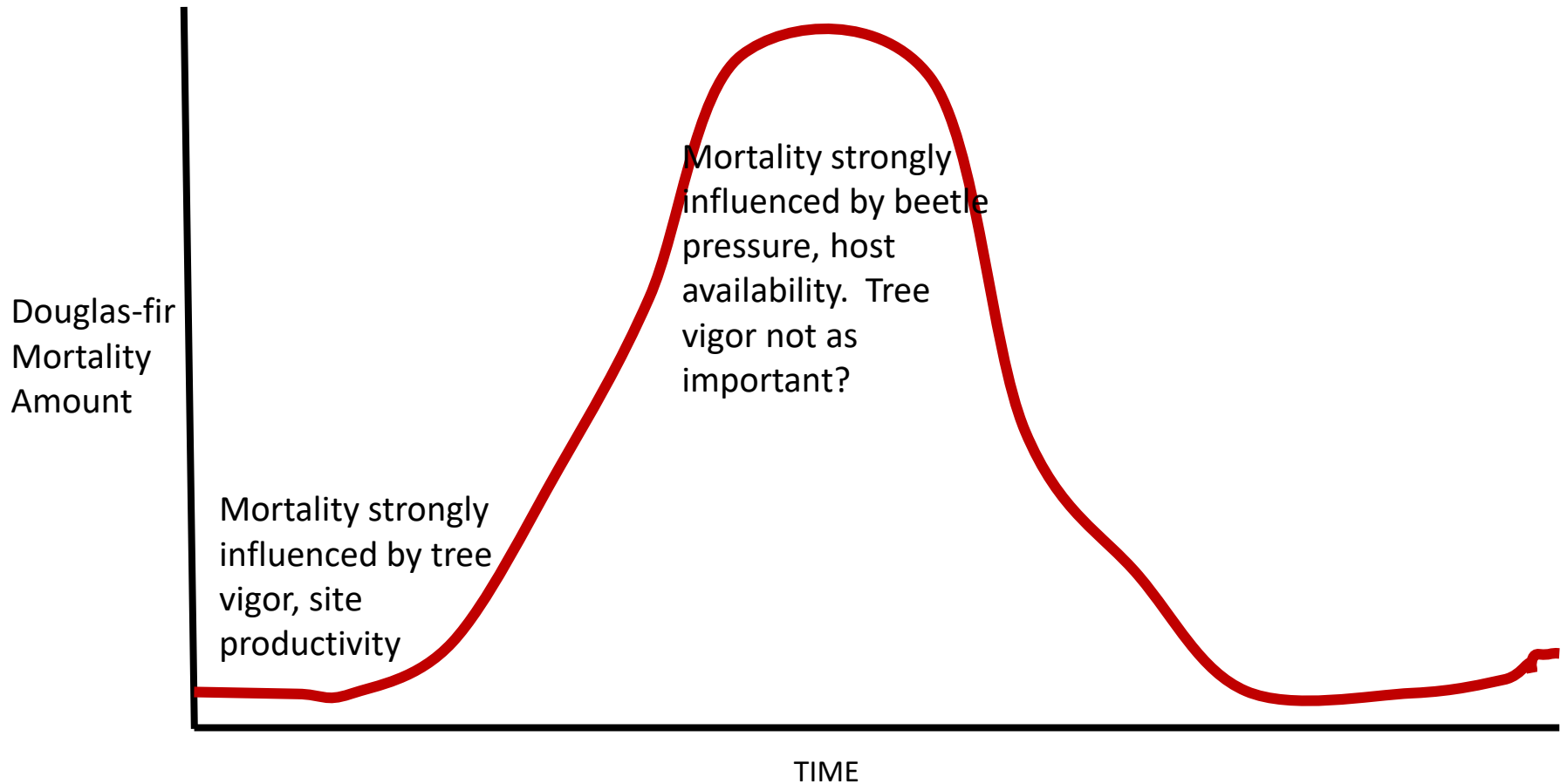
- Dave Shaw, OSU - lead
- Don Goheen, USFS FHP (ret .)
- Marty Main, consultant
- Chris Adlam, OSU
- What are management options and considerations at each stage in the process, namely stage 1 (pre-mortality), stage 2 (mortality occurring), and stage 3 (post-mortality)?
- What are the pros and cons of various management interventions?
- Can thinning be used to improve DF resistance to the FFB and related agents? What are recommended thinning strategies for common scenarios?
- How does prescribed fire fit into these mortality management scenarios?
- How do operational and economic factors influence potential management interventions? (e.g., contractor availability, equipment limitations, markets for green timber & mortality salvage)

DF mortality over time



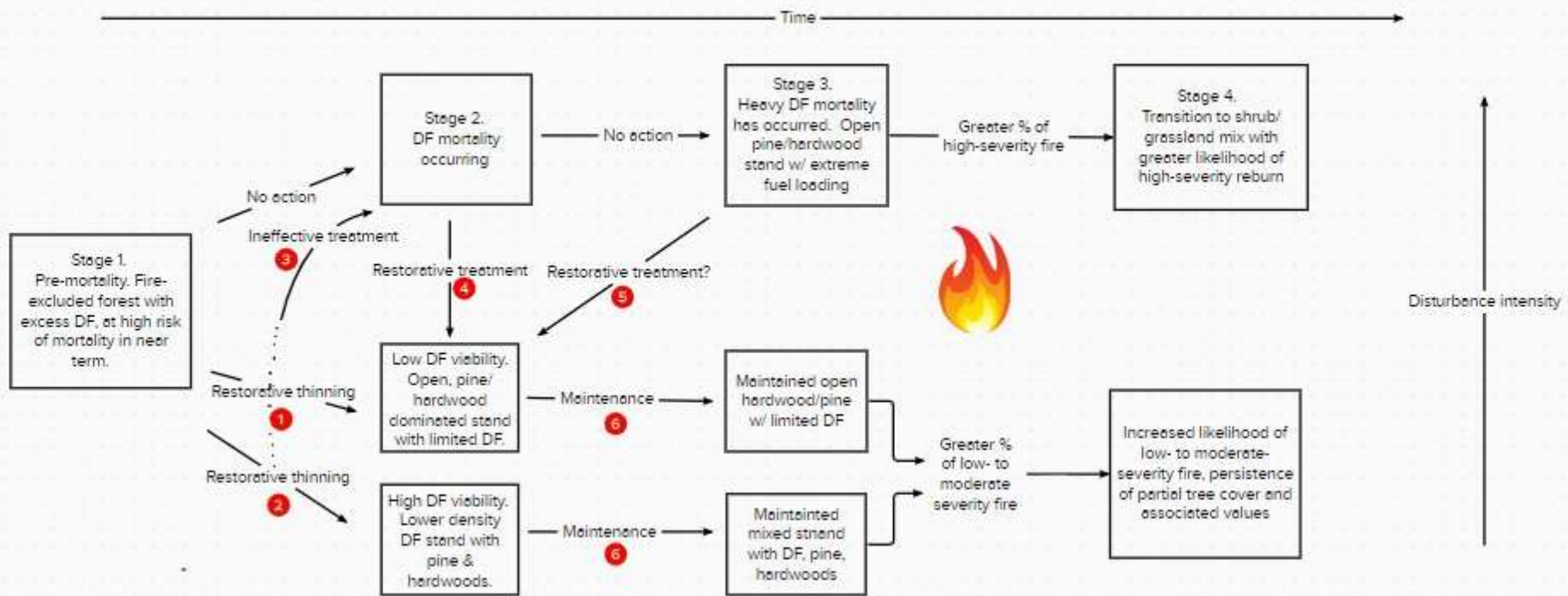
Early intervention is preferable

DF mortality over time



Hypothesis: As rates of mortality increase, beetle pressure and host availability become more important and tree vigor/site productivity relatively less important. Under high beetle pressure, large, relatively healthy trees on “good” sites may be killed.

Roadmap of basic Douglas-fir mortality treatment options.





Stage 1



Stage 2

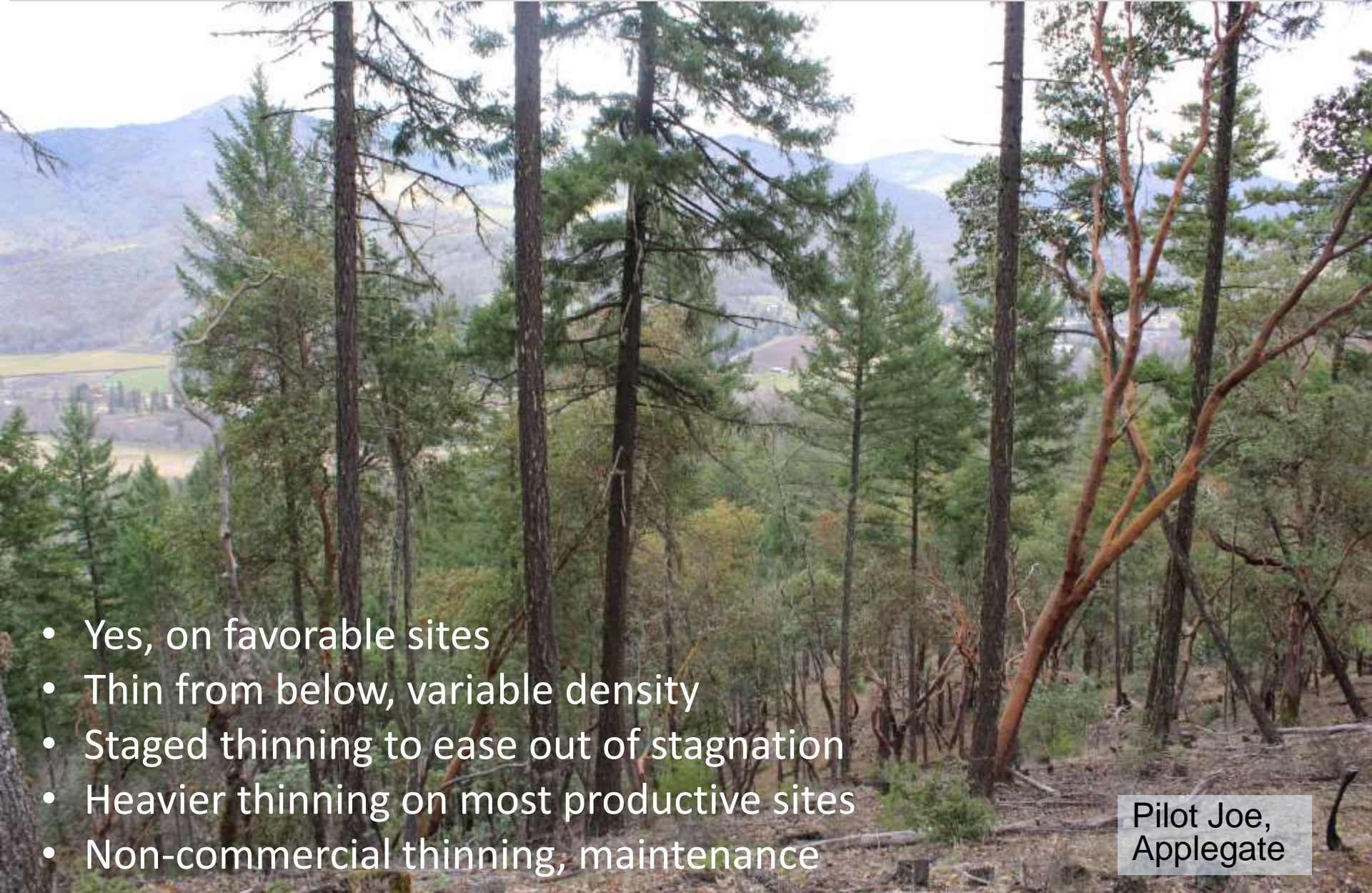


Stage 3

Thinning to increase DF resistance to drought/insects

- Yes, on favorable sites
- Thin from below, variable density
- Staged thinning to ease out of stagnation
- Heavier thinning on most productive sites
- Non-commercial thinning, maintenance

Pilot Joe,
Applegate



Thinning is not always successful



Pilot Joe,
Applegate

- Too late
- Not a favorable site for DF