Mapping Wildland Fire Threats to People and Property: Risk Communication for Regulators, Planners, and the Public

Dave Sapsis
May 8, 2018
All these maps....

- Are designed to “help” people manage for fire
- Are somewhat unique, but still a “fire” map
- Have an element of “prediction”
“Making predictions is *hard*... Especially about the future.”
--Yogi Bera
Why confess?

- Science and Models give everything anyone needs to make rational decisions
- Risk = probability x outcome
Figure 3—Process flowchart illustrating the relationships among the four components of the risk assessment process.
A Wildfire Risk Assessment Framework for Land and Resource Management

Joe H. Scott
Matthew P. Thompson
David E. Calkin

United States Department of Agriculture / Forest Service
Rocky Mountain Research Station
General Technical Report RMRS-CTTR-315
October 2013
Models are really only so good...

- Remember - they are predicting future outcomes:
  - UNCERTAINTY
  - STOCHASTICITY
  - PROBABILITY

- PEOPLE (how can you forget about people?)
People

- Have unique histories and experiences
- Are (usually) not experts in fire, but are very, very interested in it and want to know more
- Interpret predictions/expectations/forecasts/probabilities different
  - 1/10 of 1% ; one in one thousandths chance
- Varying opinions about the government’s abilities to do the right thing*
Improve Models/Improve Communication: Technology alone will not solve the problem

- Fire Hazard Severity Zones -REFRESH
- 2018-19 (?)
- Improved Fire Allocation (probabilities, fire behavior, embers)
- Downscaled fire climatology
  - SB1241 Requires local wind information to be included
Fosberg Fire Weather Index 98th tile

10 year reconstruction
2 km grids
Hourly, 24x365 data stack

Actively working on extension and improvement: 15 years, NFDRS, H-D-W, etc.
Very High Fire Hazard Severity Zones in LRA
As Recommended by CAL FIRE
New Stuff: Ignition Reduction under extreme fire potential
Questions