

USFS-NASA APPLICATIONS WORKSHOP

Opportunities and Challenges around Forest Soil Moisture Information

Forest Soil Moisture, Forest Health, and Wildfire

USFS Program Manager Perspectives



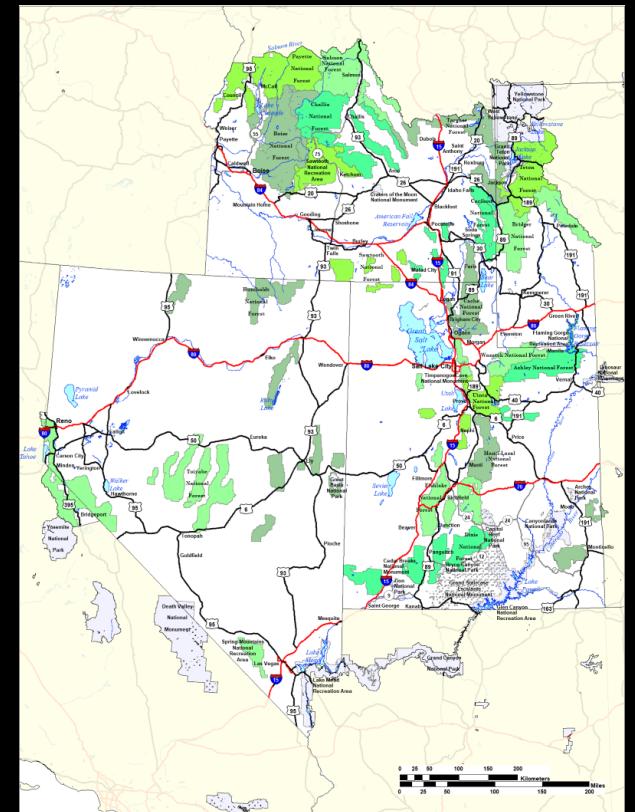
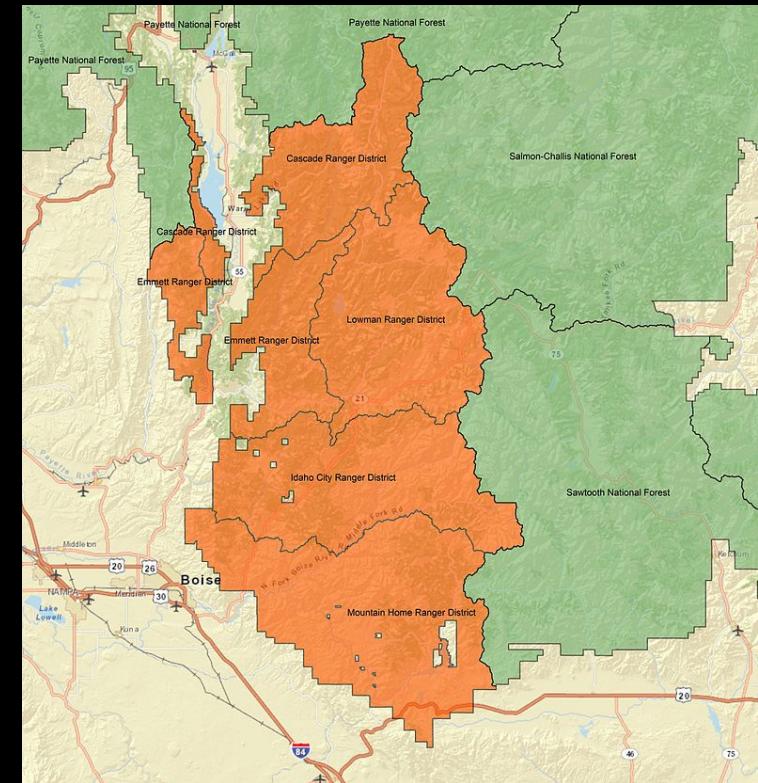
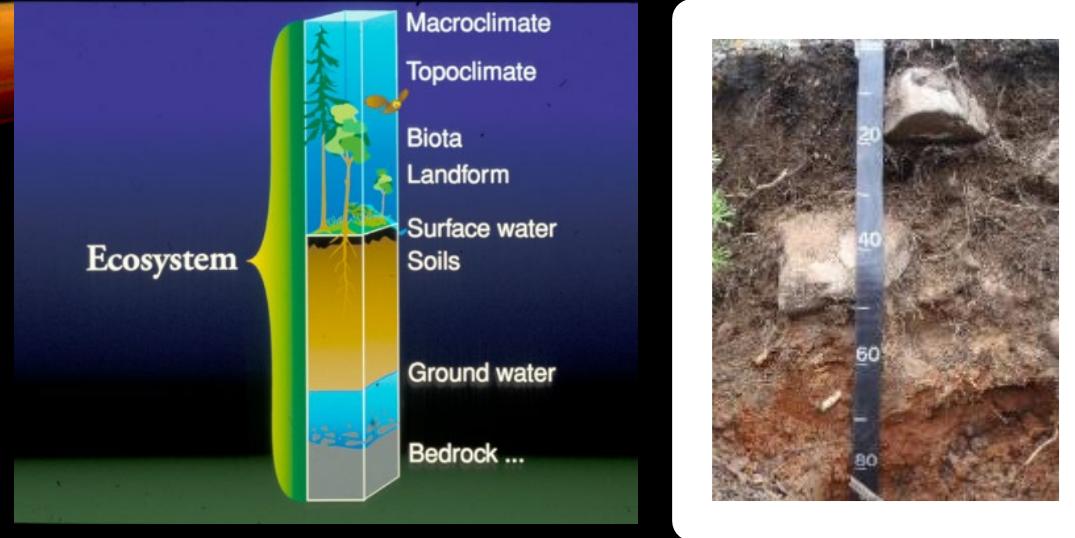
Jeff Bruggink USDA FS Ogden UT



DISCUSSION ITEMS BREAKOUT GROUP

- Scale and Resolution
- Technical Challenges to Develop Applications for Data
- Specific Data Needs
- Capacity to Use Data and Applications
- Knowledge Gaps
- Monitoring Dynamic Soil Properties
- SCAN and SnoTel and other sites validation data
- Risk levels with management decisions

- Project needs
- Landscape
- Forest Wide
- Multi-State



SCALE

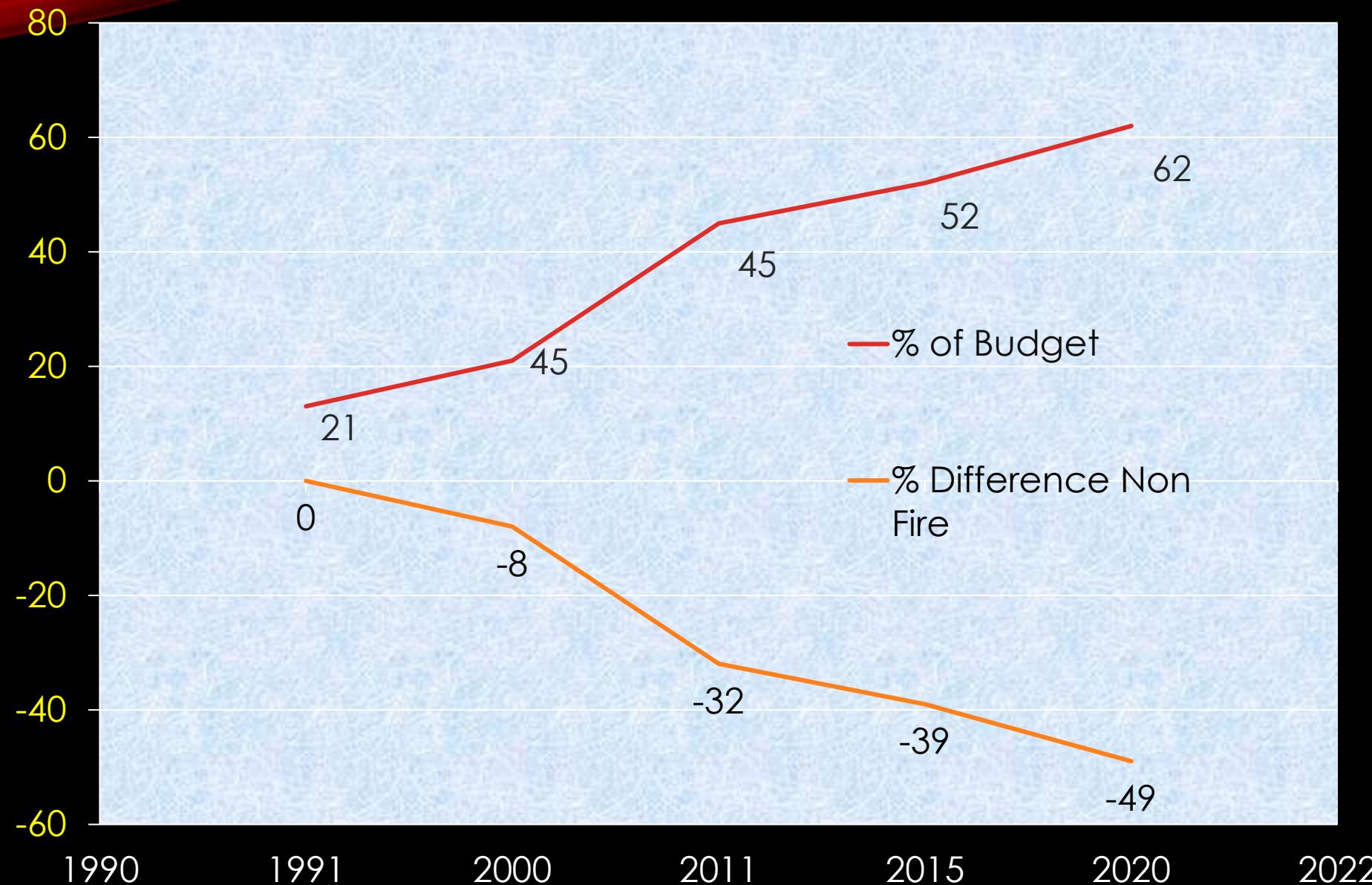
DATA NEEDS (MULTIPLE SCALES)

- Reforestation
 - Site potential
 - Seedling Survival
 - Predict and detect rooting depth soil moisture
- Range Readiness
 - Resource protection
 - Maximize potential
- Pre Disturbance resilience and resistance
 - Management opportunities and likelihood of success
- Post Disturbance Recovery
 - Determine management intervention needs
- Forest and Grassland Planning

CAPACITY AND NEED

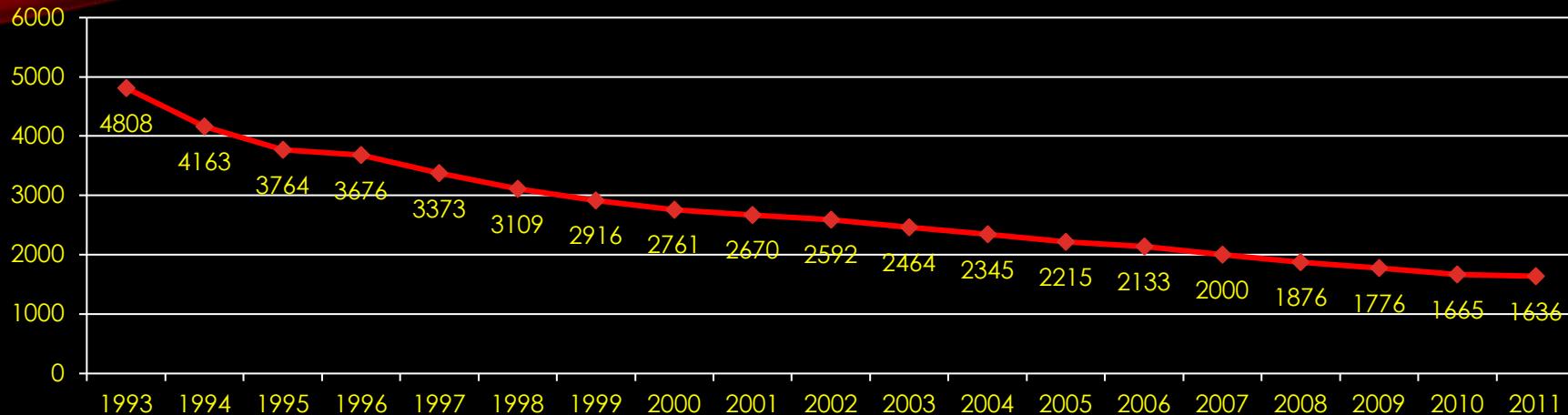
- Applications to utilize data need to be built
- Tool box is already stuffed
- Changes in agency priorities

PERCENT OF BUDGET RELATED TO FIRE



FORESTERS

U.S. Forest Service Foresters 1993-2011



Region 4 Foresters 1993-2011



PRIORITIES

- Landscape Restoration
 - Maintain sustainability
 - Match soil moisture potential with current and future actions
 - Reforestation
 - Invasive species management
 - Production potential (rangelands)
 - Fuels management
- Effects of Climate Change

Challenges-Risk and Information Management

