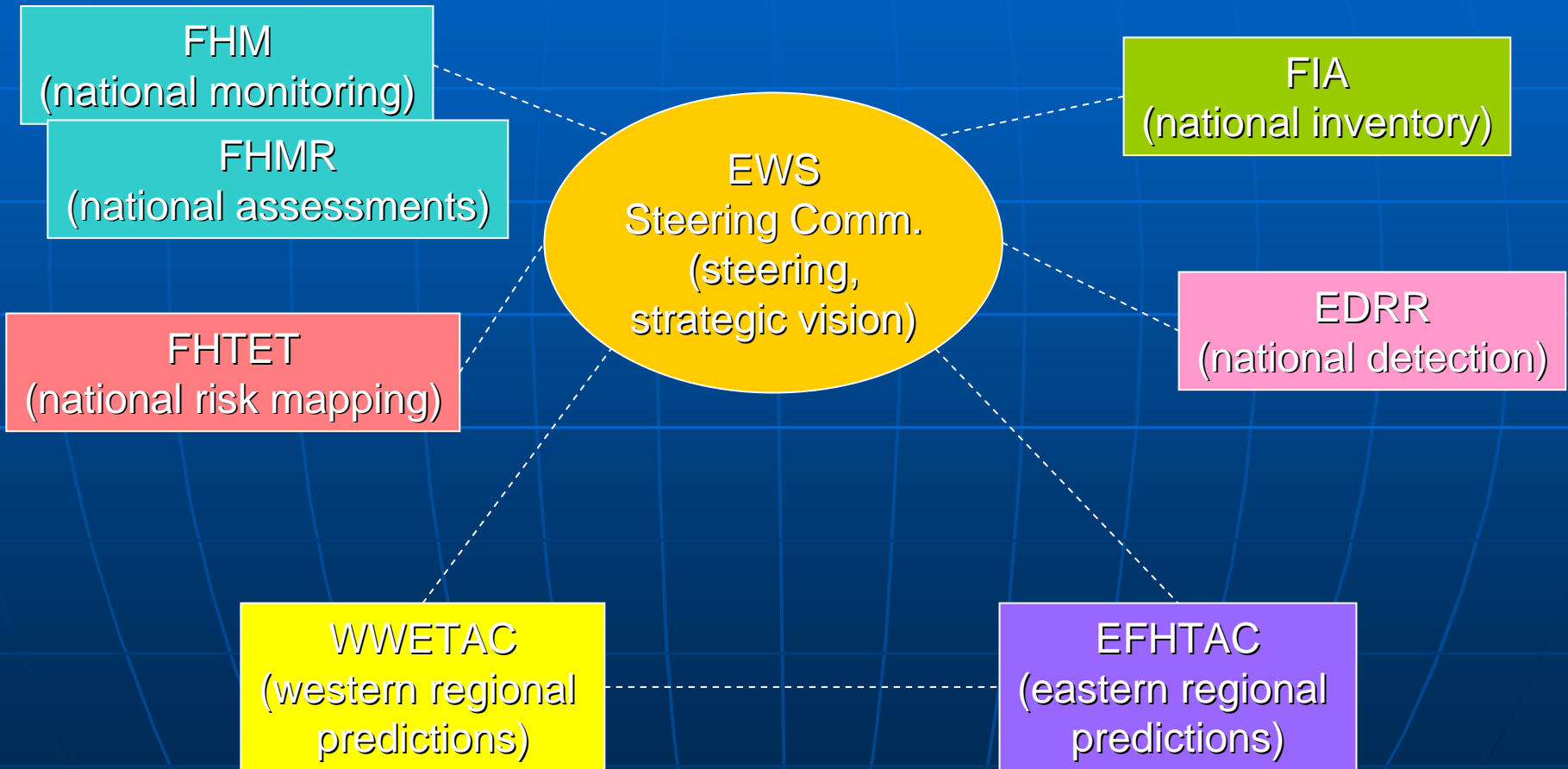


Western Wildlands Environmental Threat Assessment Center



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FS-Early Warning System Linkages



Mission

The mission of the Western Forest Environmental Threat Assessment Center is to generate, integrate, and apply knowledge to **predict, detect, and assess environmental threats** to public and private forests and grasslands of the west, and to deliver this knowledge to managers in ways that are timely, useful, and user friendly.

Objectives

- Evaluate the effects and consequences of **multiple interacting stresses** on western forest health;
- Increase knowledge and understanding of the risks, uncertainties, and/or benefits of multiple environmental stresses on western **ecological conditions and socioeconomic values**;
- Provide science-based decision support tools for **policy formulation** and land management in the western United States; and
- Provide land managers with credible predictions of **potential severe disturbance** in the West with sufficient warning to take preventative actions.

The Center will provide the following for the Western United States *at multiple spatial and temporal scales*:

- syntheses of existing knowledge and ongoing efforts to forecast the timing, potential extent, and severity of environmental threats;
- identification of gaps in knowledge related to assessing cumulative risk of multiple interacting disturbances;
- quantification and analysis of the cumulative risk from multiple interacting threats using probabilistic models to predict the likelihood of severe or uncharacteristic disturbances;
- assessments of the range of potential ecologic and socioeconomic consequences of severe or uncharacteristic disturbances; and
- delivery of Center products through a variety of user-friendly technology transfer mechanisms useful to land managers including narrative analysis, summaries, graphics, and maps in sufficient lead time for agencies to take preventive actions.

What makes the threat assessment center unique?

- **Inclusive** – examines a wide spectrum of environmental threats
- **Integrated** – looks at how the composite is more than the sum of its parts
- **Predictive** – focused on possible futures more than current conditions
- **Sentinel** – focused on raising awareness, not developing treatments or solutions
- **Collaborative** – represents an unusual partnership

Where might we focus first?

- Synthesis and data mining
 - What is currently available and ready for use?
 - What data are available that are not being used?
 - What is missing?
- Early warning systems
- Build a conceptual framework for integrated risk assessment
 - Adapt existing protocols or frameworks
 - Start work on pilot areas
- Forensic meta-analyses
 - What can we learn from recent or historical events?
- Accelerate technology delivery

How do we get started?

- Communicate with potential clients and partners
- Start recruiting and hiring staff
 - Look for team players with mix of technical expertise and interest in applied problems
 - Keep permanent staff small
- Plan for a mix of products
 - Quick versus long delivery time
 - Variety of spatial scales
- Focus
- Leverage, leverage, leverage
 - Take advantage of existing efforts
 - Start building partnerships early

Current Projects

- State of the Science Workshop
- Hypertext Encyclopedia Module
- West-wide Vegetation Layer
- Forest Threats Conference, July 2006
- Denver, CO Client Meeting
- Develop Web Server Capability

Future Projects

- Risk Analysis
- Modeling
- Remote Sensing
- Impact Assessment
- Technology Transfer

USDA Forest Service
PNW Research Station
WESTERN WILDLAND ENVIRONMENTAL THREAT ASSESSMENT CENTER (WWETAC)
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