Why this session?

Disconnect between landscape level assessments and planning, and transactions on-the-ground focused on ecosystem services and markets.
Goal of biodiversity conservation:

Maintain native plants and animals in functioning ecosystems.
Biodiversity exists at multiple scales

- Genetic
- Species
- Ecosystems
- Landscapes
Biodiversity provides the raw material for ecosystem services

- Food and shelter
- Flood control
- Pollination
- Recreation and aesthetic benefits
Landscape context is critical

Which habitats/species are at risk?
Where are they?
How much is enough?
How will they be managed in the future?
What are the long-term prospects?
Landscape scale conservation – an emerging resource management framework

- Conceive, plan, manage projects with conservation value
- Leading to a system of interconnected lands
- Contiguous area between site and ecoregion
- Distinct ecological, economic social characteristics
Landscape scale conservation...

- Is holistic
- Seeks to maintain long term sustainability of lands and waters
- Multi-jurisdictional
- Multi-purpose
- Multi-stakeholder
Agencies pursue landscape scale conservation independently

- Landscape Conservation Cooperatives – FWS
- All lands approach – FS
- EcoLogical – transportation
- Basin planning – Army Corps
- Landscape scale mitigation for energy development – BLM
Landscape scale conservation challenges in existing institutions:

- Stovepipes within/between agencies
- Conflicting missions
- Duplicative and inefficient
Ecosystem service markets and programs

- Water quality trading can be strategic within jurisdiction
- Often fail to consider ecological context
- Focus in individual sites and/or resources
- Are driven by narrow regulatory requirements designed for other purposes
Wetland, endangered species mitigation programs

- Seek to “offset” damage on site or nearby
- May fail to allow investment in high quality projects
- Are often too small, in the wrong place
- Lack long term management
- May not result in net conservation benefit
Conservation biology principles

- Consider scale and context in planning
- Large blocks of contiguous habitat
- Connected or permeable landscapes – migration, climate change
- Account for dynamic, changing ecosystems
- Water quality, supply requires watershed approach
Next generation of ecosystem service projects

- Nested and integrated within larger landscapes
- Landscape scale plans cross public/private lands
- Map areas for development/conservation
- Focus mitigation in priority areas
Landscape scale conservation plans must be strategic

- Need clear goals
- Mapped conservation priorities
- Range of tools – traditional and new
- Commitment to adaptive management
Challenge ahead

- Management, development, conservation need to work together
- Find cost-effective ways to achieve conservation goals
- Tap best ecological and social science
- Implement on-going strategic monitoring programs
Multi-scale/multi-jurisdictional ecological outcome measures

- Site-scale metrics for regulated resources – mitigation programs
- Broad scale metrics for overall ecological integrity
- Improved alignment of ecological metrics across agencies
Application projects – characteristics

- Large landscapes
- Public and private lands
- Aquatic and terrestrial resources
- Assess eco services
- Consider tradeoffs in planning process
Conservation Registry

- Web-based tool (www.conservationregistry.org)
- Tracks projects relative to mapped priorities