

**Excerpt 5 of 6:** Slides 88-130 of 144 total presented March 10, 2011  
National public forum, 2011 proposed FS planning rule  
The complete presentation and all excerpts are available at:  
<http://www.fs.usda.gov/goto/planningrule/forums>



## § 219.8 Sustainability

Materials were condensed for this presentation. For more details, see <http://www.fs.usda.gov/goto/planningrule/faqs>

# Ecological Sustainability

- Maintain or restore the structure, function, composition, and connectivity of systems
  - ⊗ Terrestrial
  - ⊗ Aquatic
  - ⊗ Watersheds



# Ecological Sustainability



Take Into Account

Integration of  
Ecosystems

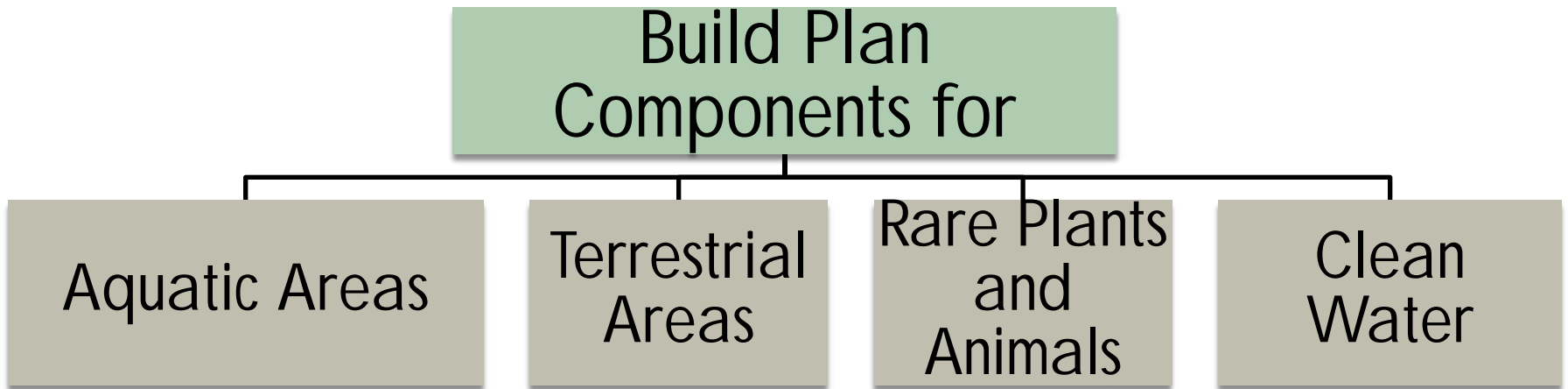
Wildland  
Fire

Ecosystem  
Drivers

Disturbance  
Regimes

Environmental  
Stressors

# Ecological Sustainability



# Water

- Restore and Protect:
  - ⊗ Public water supplies
  - ⊗ Groundwater
  - ⊗ Sole source aquifers
  - ⊗ Source water protection areas



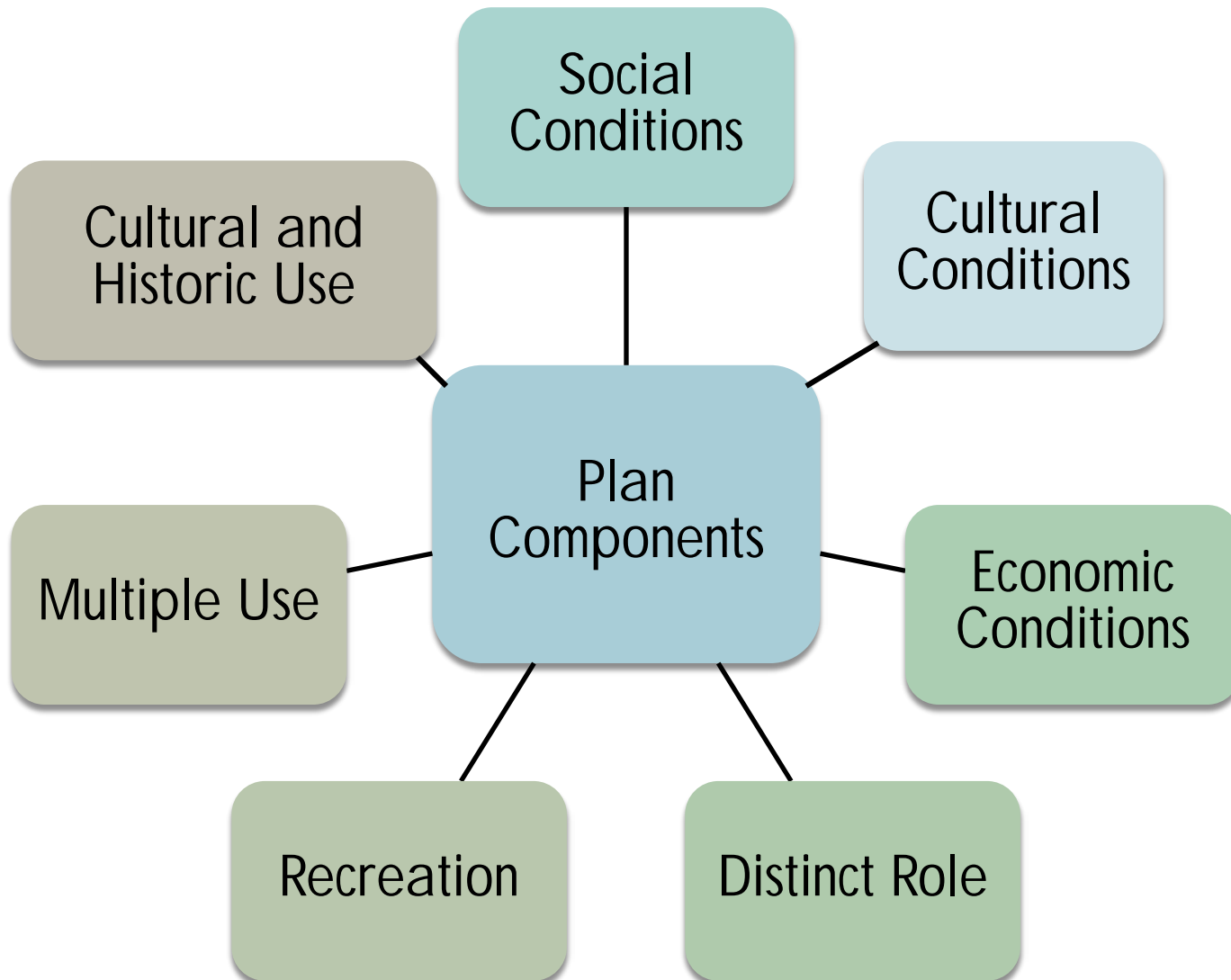
# Water



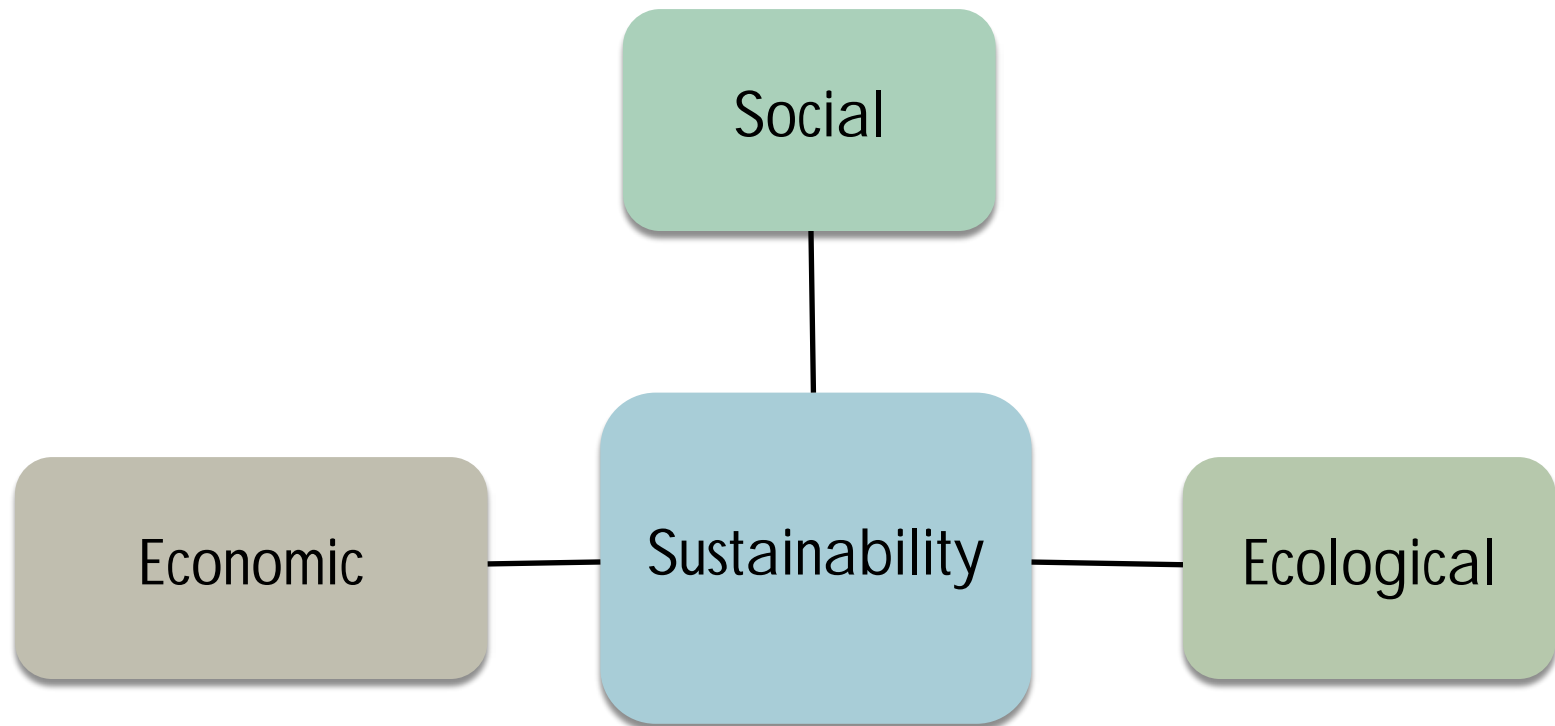
- Maintain, protect or restore riparian areas
  - ⊗ Components to guide management
  - ⊗ Default width of riparian areas
  - ⊗ Riparian zones verified on-site



# Social and Economic Sustainability



# Social and Economic Sustainability







## § 219.10 Multiple Uses

Materials were condensed for this presentation. For more details, see <http://www.fs.usda.gov/goto/planningrule/faqs>

# Multiple-Use Sustained Yield Act



- “Management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people.”
- Plans would provide for multiple uses, including ecosystem services
  - ✧ Outdoor recreation
  - ✧ Range
  - ✧ Timber
  - ✧ Watershed
  - ✧ Wildlife and fish

# Integrated Resource Management



# Process Requirements



- .. Responsible official will consider:
  - ⊗ Wide range of natural resources, renewable and nonrenewable energy, and infrastructure
  - ⊗ Opportunities to work with neighboring landowners and partners
  - ⊗ Habitat conditions of species for public use and enjoyment
  - ⊗ Potential impacts of climate change and other stressors
  - ⊗ Foreseeable risks to sustainability

# Specific Plan Components

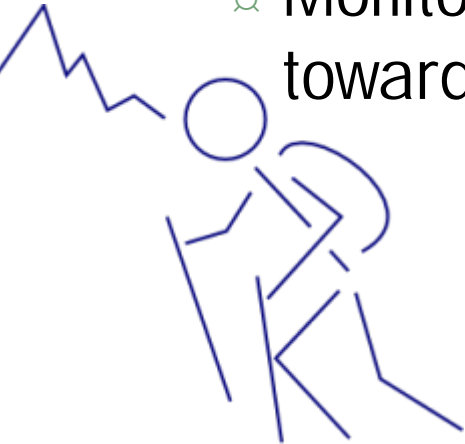


- Protection of cultural and historic resources
- Management of areas of tribal importance
- Protection of wilderness areas and wild and scenic rivers
- Protection and management of other designated or recommended areas
- Other plan components for management to provide multiple uses

# Specific Plan Components



- Sustainable recreation opportunities and access on land, water, and air
- Sustainable recreation is built in throughout the rule
  - ✧ During assessments, plan components are required for multiple uses, including sustainable recreation
  - ✧ Supports social and economic sustainability
  - ✧ Monitoring requirements for visitor use and progress toward meeting recreational objectives



# Timber Requirements



## Timber Requirements Based on NFMA

- Lands suitable for timber production
- Harvest of trees on land not suitable for timber requirements
- Harvest for salvage, sanitation, or public health or safety
- Limits on timber harvest on suitable and non-suitable lands

# Examples



- Sustainability
- Sustainable Recreation
- Climate Change





Riparian Vegetation Monitoring Technical guide,  
Western US – Riparian Technical Team. Draft  
2011

Lead :David Merritt (Stream Systems Technology  
Center – Ft. Collins, CO)

# Common Methods for Determining Riparian Width



- Set buffer distance from stream channel (e.g., 100 feet)
- **Riparian width based upon some multiple of channel width (e.g., three times active channel width on either side of the stream)**
- Height (or some multiple of height) of vegetation adjacent to stream (e.g., two times tree height)
- GIS exercise of setting buffer width around hydrography layer of stream channels



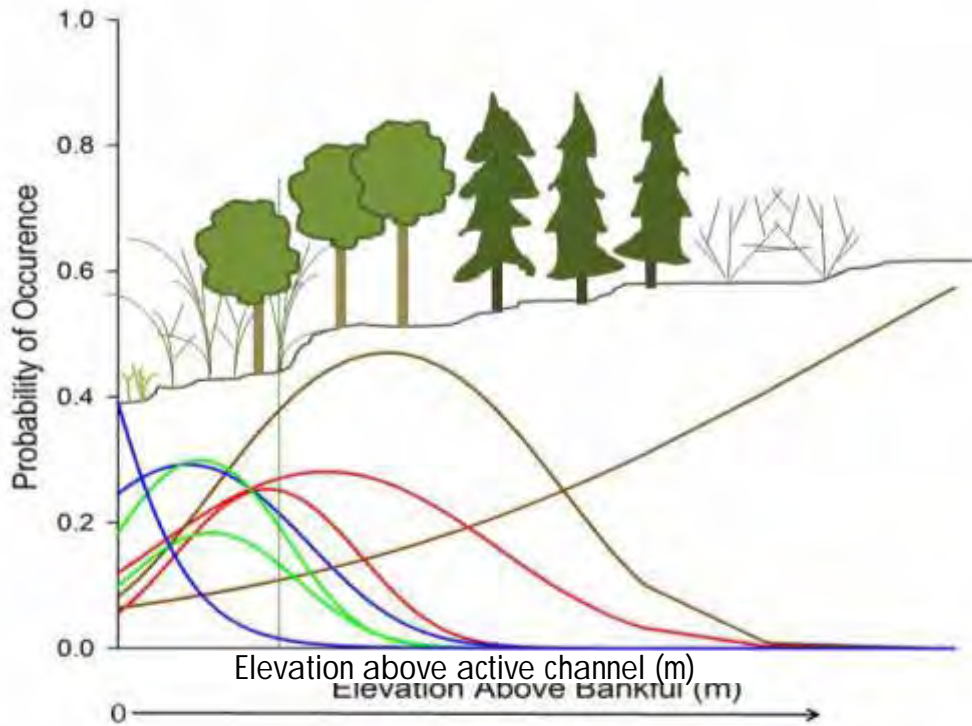
# Common Methods for Determining Riparian Width (Contd)



- GIS exercise of setting different buffer widths around stream channels of different stream order (size): larger buffer for larger channels; smaller buffer for smaller
- **GIS exercise of using valley form from DEMs and/or hydrology to determine valley width and potential riparian width**
- **Riparian margin determination based upon characteristics measured in the field**







Riparian areas represent a gradient, not often a distinct boundary. Plant species distributions (colored lines) occur along the gradient of water availability, fluvial influence, and associated factors. The transition from true riparian to upland must be based upon multiple indicators:

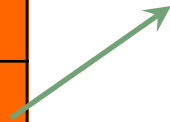
- 1) vegetation characteristic of riparian areas in the region, 2) signs of active fluvial processes, and 3) hydrology associated with the stream or river.**

# Geomorphic Valley Classification and delineation based upon:

1) system energy, 2) valley confinement, and 3) hillslope coupling – provides a conservative estimate of potential riparian width, *often overestimating it.*



Valley Class	Energy/ Valley Gradient
Headwaters	> 4%
High Energy Coupled	> 4%
High Energy Uncoupled	> 4%
Gorge	Variable
Canyon	Variable
Moderate Energy Confined	0.1 - 4%
Moderate Energy Unconfined	0.1 - 4%
Glacial Trough	< 4%
Low Energy Floodplain	< 0.1%



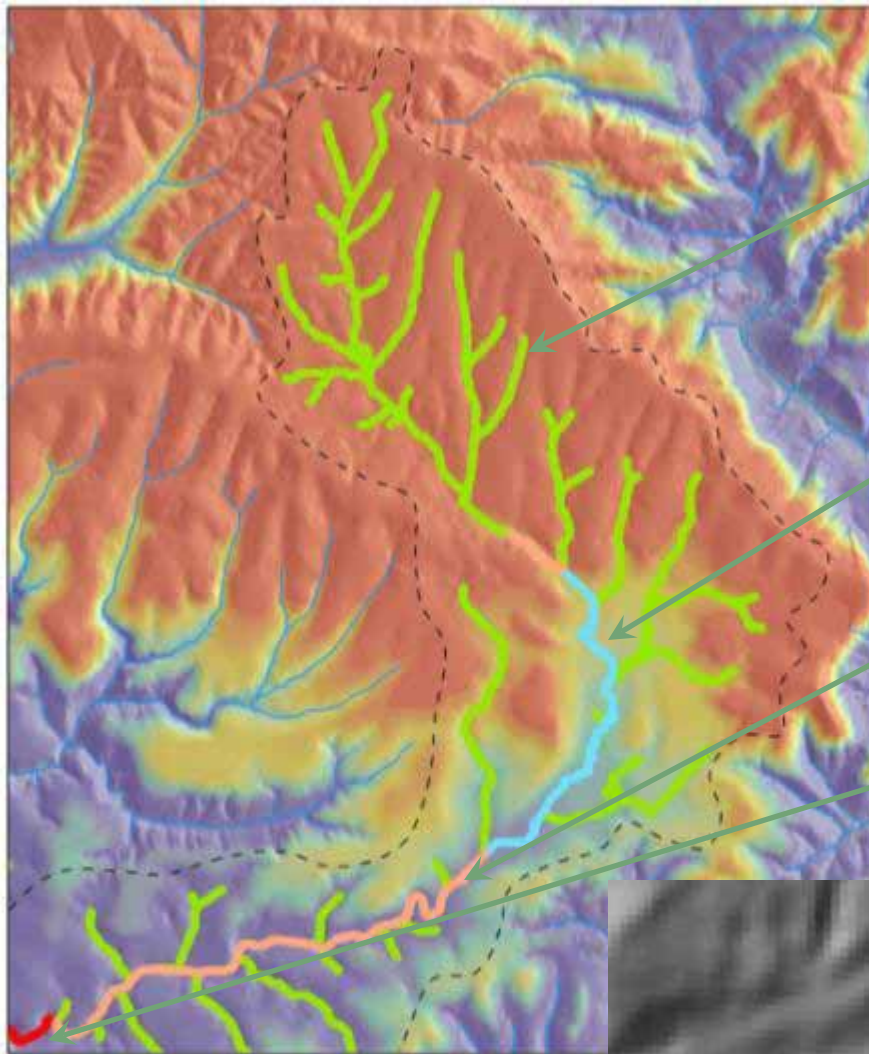


High energy coupled valley

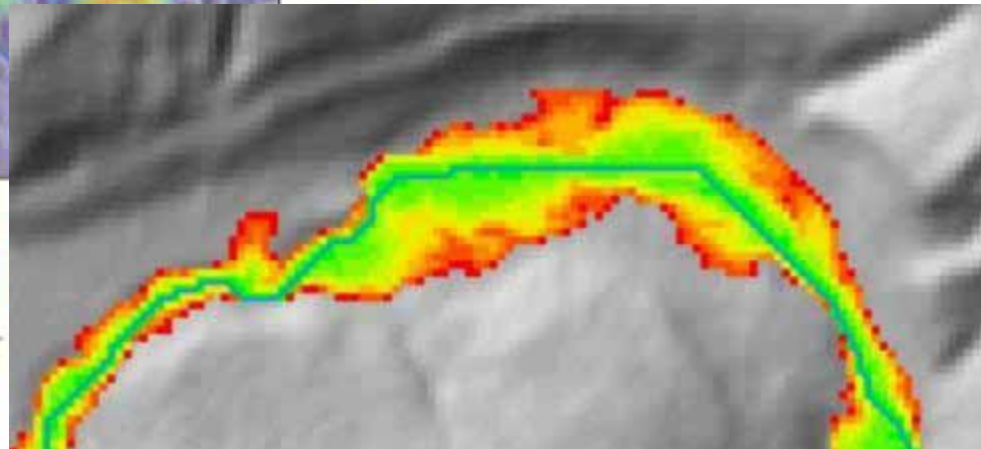
Canyon

Moderate energy unconfined valley

Low energy floodplain



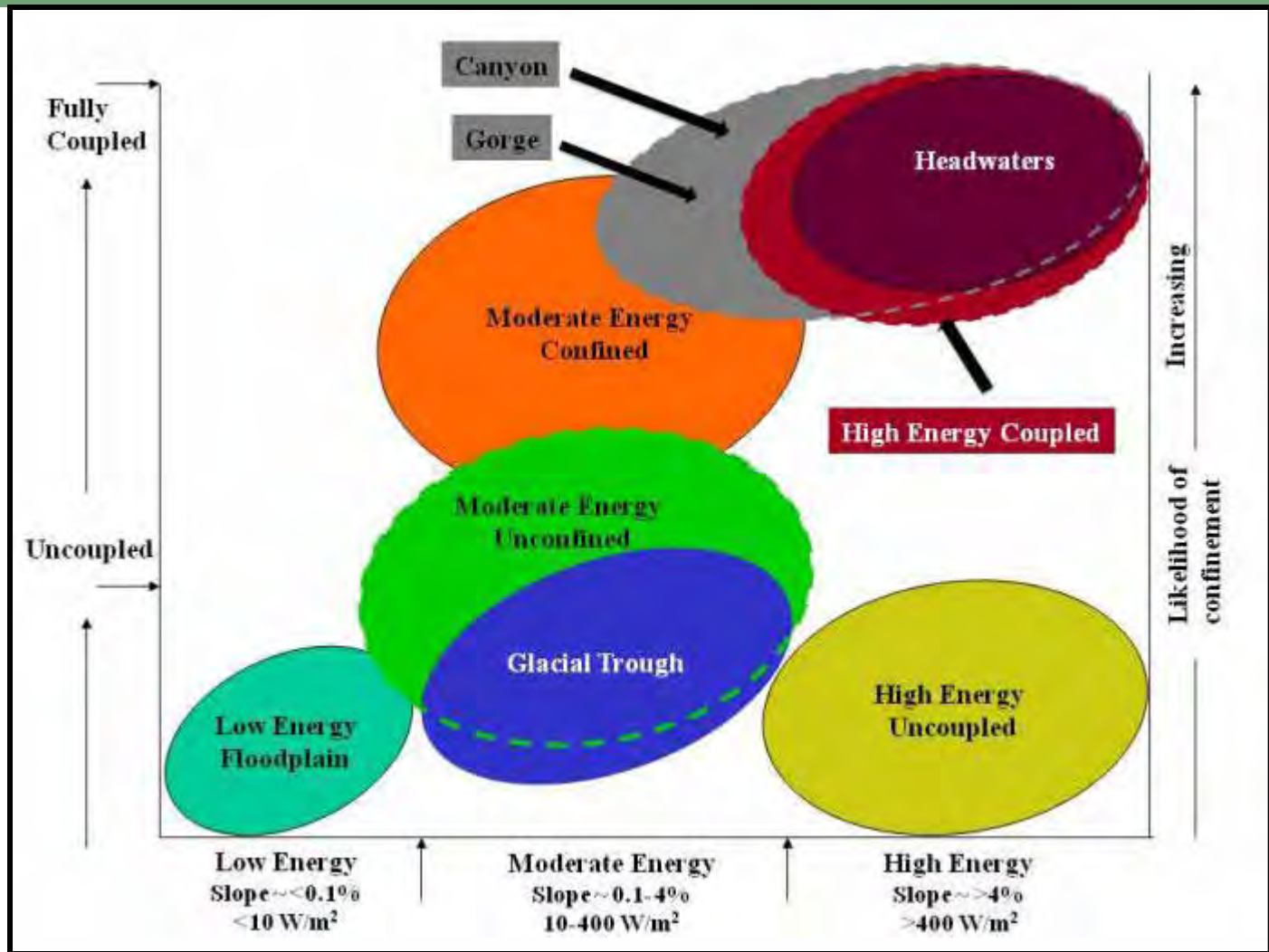
0 500 1,000 2,000 3,000 4,000 Meters







Geomorphic Valley Classification provides a basis for defaulting to a riparian width based upon multiples of channel width (e.g., two times active channel width in *headwaters* and *canyons*; three times active channel width in *moderate energy coupled valleys*)





A prudent approach is to:

- 1) conduct field delineation of riparian width when possible and
- 2) allow width to expand beyond a default to a minimum width that scales with the channel (e.g., 3 times active channel width) and may vary by valley type as determined by *Geomorphic Valley Classification*





a framework for  
**Sustainable Recreation**



A New Approach to Forest Service  
Outdoor Recreation and Tourism



United States Department of Agriculture  
Forest Service

## Definition – Proposed Planning Rule

The set of recreational opportunities, uses and access that, individually and combined, are ecologically, economically, and socially sustainable, allowing the responsible official to offer recreation opportunities now and into the future.



## Scale

1. Sustainability of a recreation program on a national forest or grassland.
2. Recreation's contribution to economical and social sustainability in the area influenced by the plan.



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# SUSTAINABLE RECREATION





## Public Participation

- Key component of proposed planning rule and sustainable recreation
- Community engagement is essential for sustainable recreation.

## Sustainable Recreation Example

- Prescott National Forest
- Partners: community groups, providers of outdoor recreation opportunities, conservation organizations, local governments, state and federal land management agencies, and the people who live and recreate in the greater area of the Prescott National Forest.



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# PUBLIC PARTICIPATION









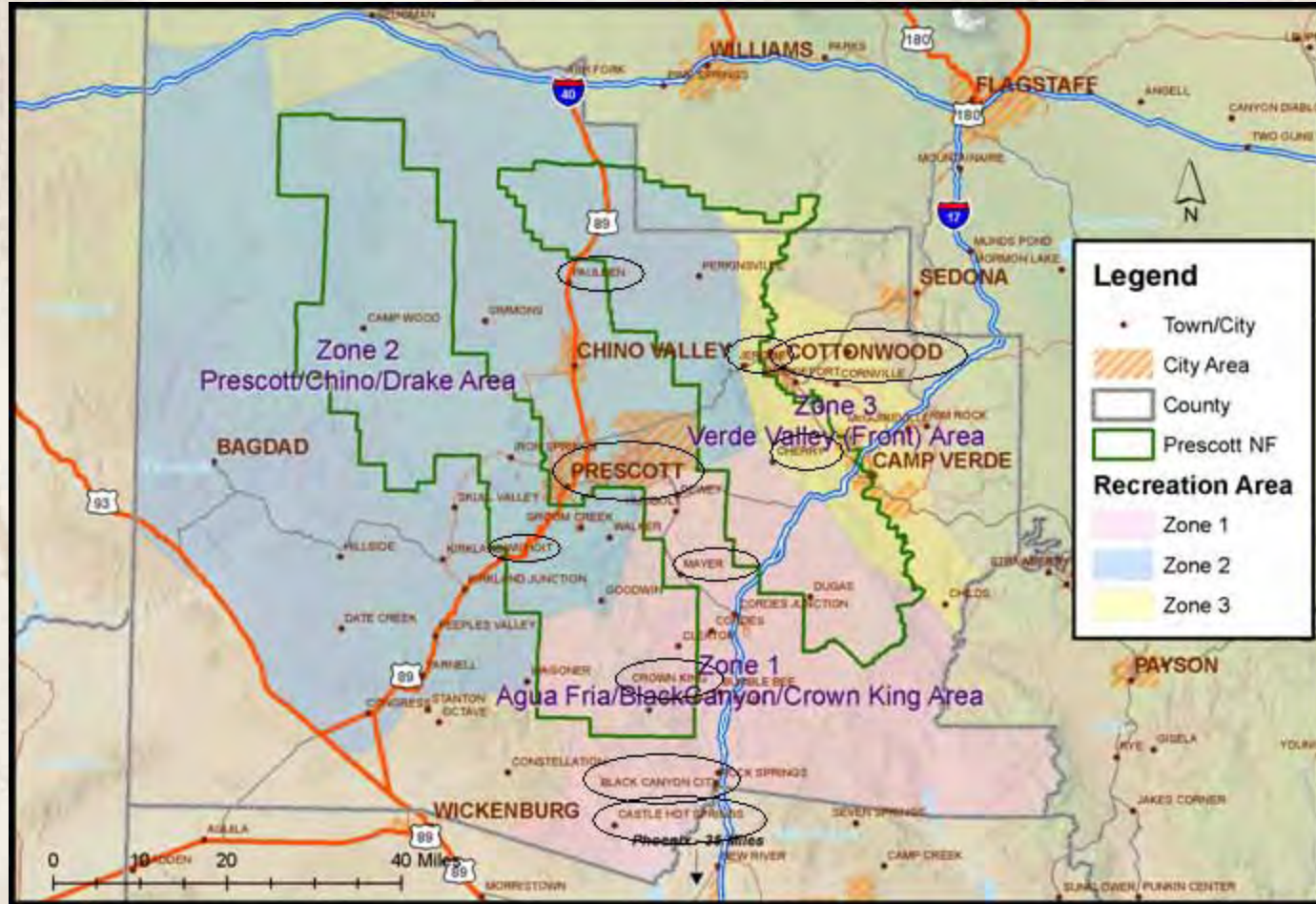
## **Prescott National Forest – Where the Desert Meets the Cool Pines**

*“The Prescott’s unique mix of climate zones provide for (a) cool zone ... in the summer and a warm zone in the winter. ... short-duration, day-use recreation on trails....”*



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# ASSESSMENT - DISTINCTIVE CONTRIBUTION



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# ASSESSMENT – COMMUNITY VISION



**RECREATION / ACCESS**  
**PAULDEN - ATV/MOTORIZED RESTRICTION**  
 Verde Valley - BIG variety of uses - motorized, non-motorized; access; opportunities to explore, enjoy, learn, help maintain  
 WILMIT - HORSE TRAILS AND WADEN DUCKS  
 - RAINY SEASON  
 - VOLUNTEER DEC. FOR TRAIL MAINT  
 - BETTER MAPS  
 Prescott - use & access for variety of users & techniques trails systems & trailheads - safety non-motorized motor users  
 Cross Hwy - adequate parking, increase campsites  
 BCC - development of public trails  
 PFC - 1.0 / CHW TRAILS FOR BAY + WASH. STATE  
 ENFORCE LAWS IN EXISTING AREAS  
 EDUCATION OF "CITY FOLKS"  
 (non-motor)  
 WAPWP - limited BAY use, caution, training for users  
 Cross Hwy - available - Mountain, already-maintained motor and non-motor trails  
 Increase: more trail impacts, less BAY use  
 non-motorized trails, no shooting from forest roads  
 Quiet: need to enjoy forest sounds + views

## Crown King (Draft)

*"Adequate public facilities.... Increase the number of improved campsites...."*

## Verde Valley (Final)

*"A system of non-motorized multi-use trails connects communities...encourages people to improve health...."*

*Roads and selected areas are managed for responsible use of off-highway vehicles, while other areas are...managed for non-motorized uses. "*

## Town of Prescott (Draft)

*"The Prescott National Forest (PNF) will maintain a comprehensive system of...sustainable trails.... The PNF, with user participation, will minimize user conflict...."*



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**Sustainable  
 Recreation**

# ASSESSMENT - COMMUNITY VISION



## Desired Conditions (Draft 4):

*“The number and location of recreation facilities respond to changing demographics and demand...so that visitors enjoy the cultural and biophysical resources while protecting those resources.”*

## Objectives (Draft 4):

*“Add 2-5 developed recreation areas within 10 years of plan approval.”*

There may be an opportunity to coordinate with the Verde River communities and add developed recreation sites in a location within the Verde Valley.

# PLAN DEVELOPMENT



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## Monitoring Questions (Draft 4)

*“How many new recreation sites or locations have been added to the system?”*

*“How many recreation sites or locations have been improved, relocated or decommissioned in response to known resource damage?”*



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Recreation

# MONITORING

# Implementing Framework For Sustainable Recreation

- Forest divided into 3 zones
- Identified top 6 draft recreation goals for each zone
- Identified draft strategies and actions for each goal
- Example:  
*Develop a multi-jurisdictional recreation facilities master plan.*



# BUILDING ON FOREST PLANNING



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Recreation



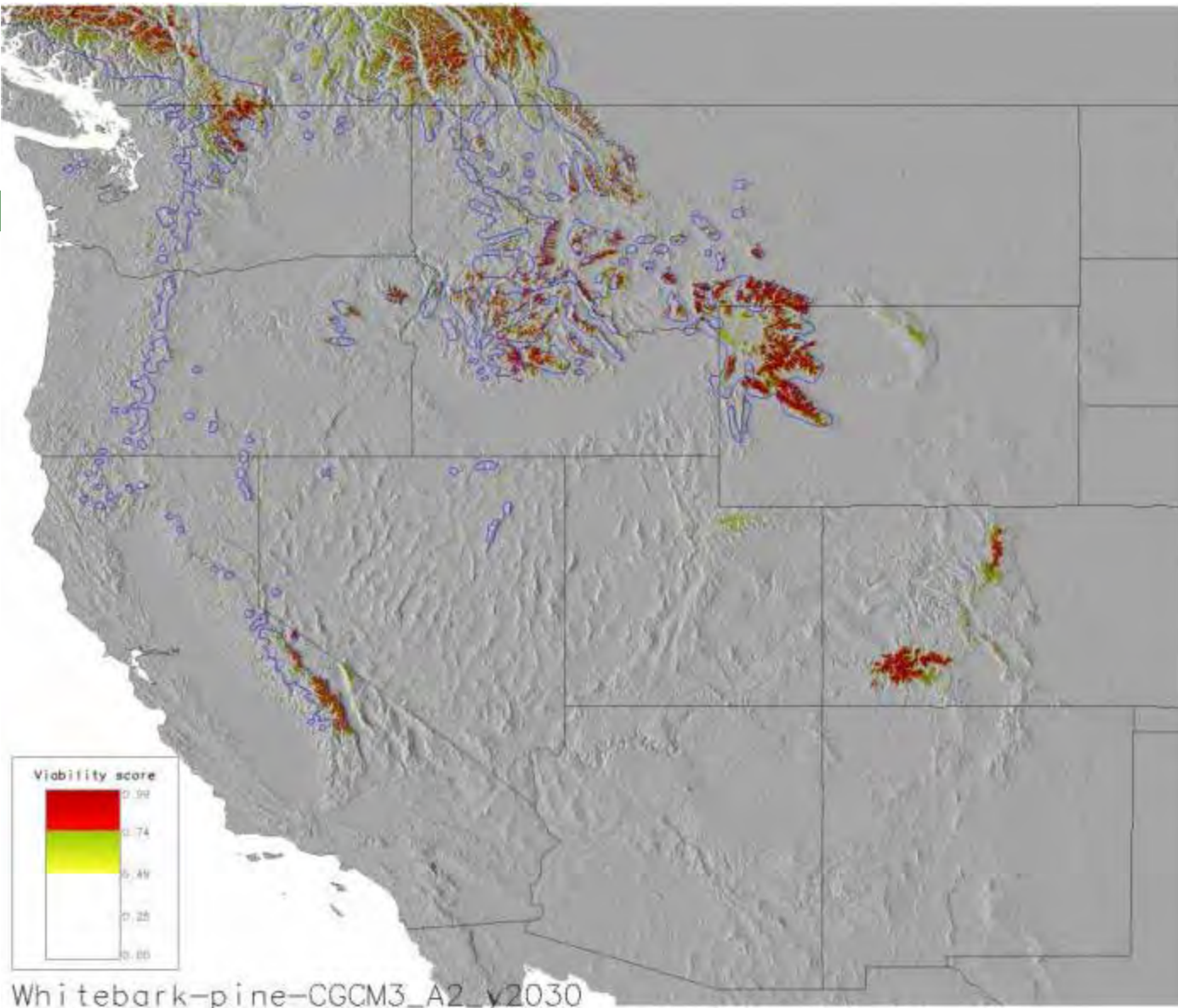
# Whitebark Pine



Photo by S Arno







Projected decline in whitebark range over the next 50 years due to climate change





# Aspen





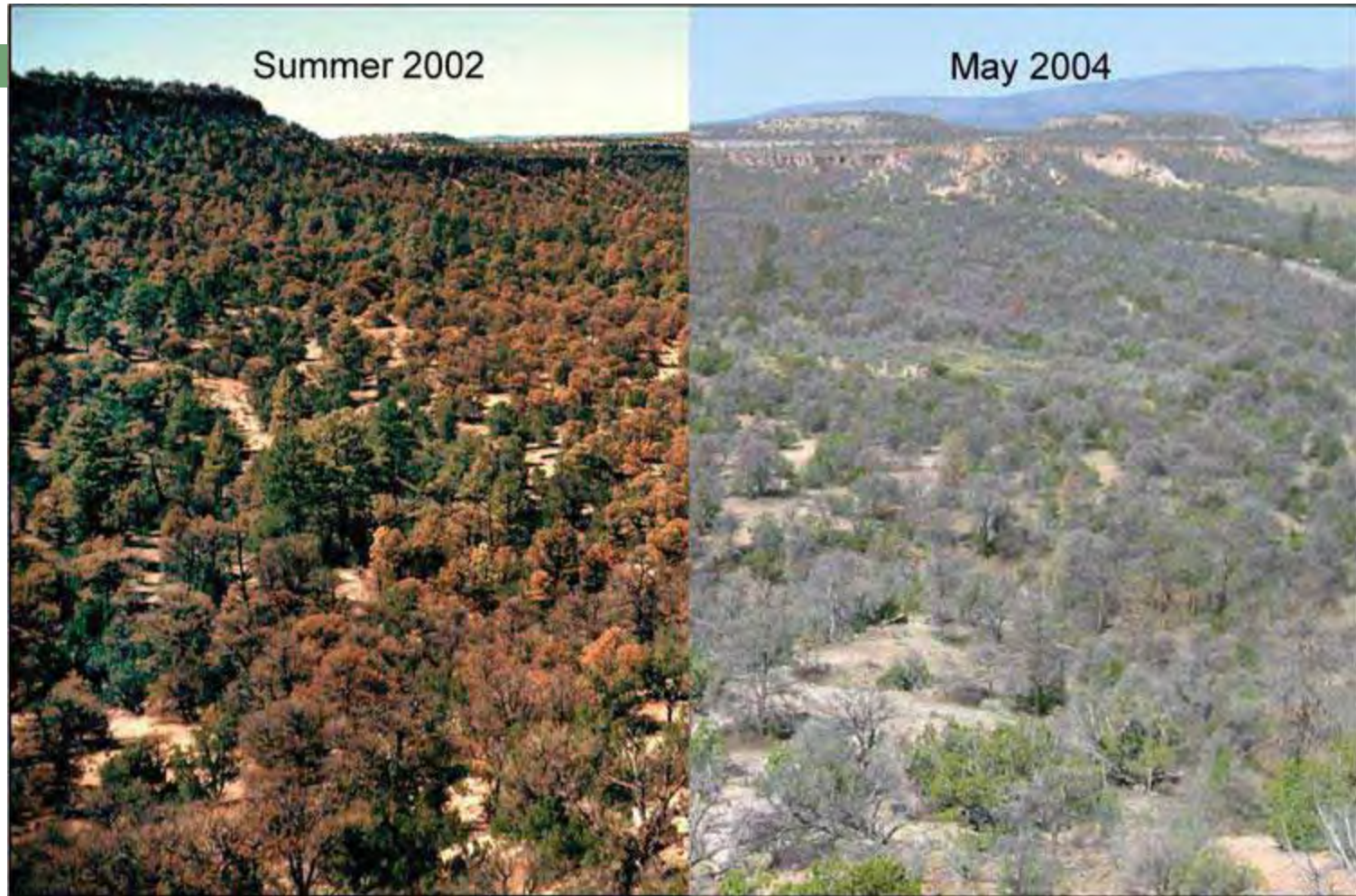


## Yellow Cedar – Southeast Alaska





# Pinyon – juniper forests in the Southwest



**The Forest Around Los Alamos During and After Drought Stress and a Bark Beetle Outbreak**

Photo courtesy Craig Allen



# Lodgepole Pine - Colorado



# Climate Change Scorecard Activities

## **MONITOR**

Monitor Climate Impacts  
Monitor Carbon  
Monitor Effectiveness

Assess Vulnerability of  
Key Resources to  
Climate Change and  
Other Stressors

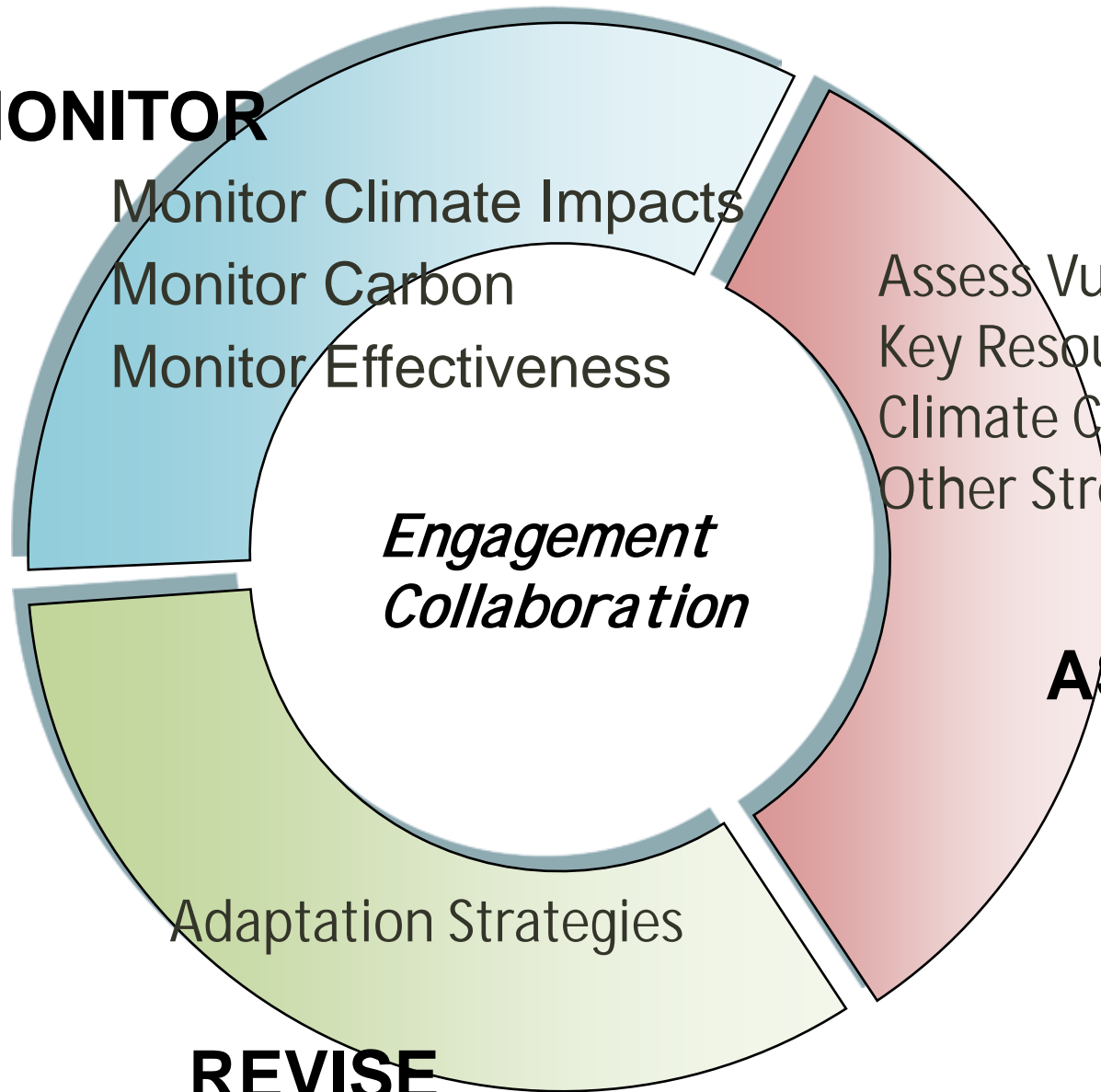
## **ASSESS**

Adaptation Strategies

## **REVISE**

(or Amend)

*Engagement  
Collaboration*



Break

3:45-4:00