Integrating
Recreation Settings and Opportunities
with the
R1 Climate Change and Restoration Strategy

February, 2011

Theme (Topic area) # 5: Recreation Settings and Opportunities

Scenarios (Specific desired Outcomes):

5A – Visitor Safety

5B – Investment Protection

5C – Recreation Setting Restoration

5D – Scenic Integrity Restoration

5E – Scenic Integrity Protection

Our Assumptions about Climate Change that may effect Recreation Use Patterns

- More extreme weather events
- Higher Summer Temperatures
- Drier Summers/Wetter winters
- Snow accumulations at higher latitudes and elevations
- Reduced snowpack
- Earlier run-off
- Reduced water flows
- Higher water temperatures

(+) Demographic changes and demands:

- Increasing population – urban interface
- Older population
- New, unknown toys and
- Higher demand for communication (cyber space access)
- Likely need for more RV hook ups/air conditioning

Assumed Consequences:

Changes in vegetation – habitat

Less biodiversity

Changes in fish and wildlife (species/distribution)

Increased fire frequency, intensity & severity

Increase in insects, disease, and drought

Diminished air quality

Less water – more concern about water storage

Higher use levels near water and higher elevations

Increased wildlife/human conflicts

Changes in shoulder seasons (longer and or shifting spring/fall??)

Changes in hunting season – due to changing wildlife patterns

Snow-based winter use at higher latitudes and elevations

Longer & possibly new non-snow activities at lower elevations

Need to move some facilities to meet changes in setting and demands (safety, comfort, and activity based)

Scenario 5a: Visitor Safety

Where should we focus our efforts to protect recreating visitors from fire and/or hazard trees?

Value – Concentrated Use Areas:

- Developed Recreation Sites *(weighted using visitation level, capacity, occupancy, and duration – day use vs. overnight)*
- Recreation Residences
- Ski Areas
- Dispersed Recreation Sites *(predictive model)*
- Travel Corridors *(roads and trails)*
- Resorts /Org. Camps/Marinas

Risks – dangers:

Burn Probability Information

Insect Occurrence from ADS, Beetles (FIA)

Changing Wind events???

Feasibility – access limitations

Scenario 5a+: Visitor Safety

Where should we focus our efforts to protect recreating visitors from Flood Events?

Value – Concentrated Use Areas:

- Developed Recreation Sites *(weighted using visitation level, capacity, occupancy, and duration – day use vs. overnight) – those within flood zone*
- Recreation Residences
- Dispersed Recreation Sites *(predictive model)*
- Travel Corridors *(roads, rivers, and trails)*
- Resorts/Marinas

Risks – dangers:

- Flooding (existing and potential)
- Mud slides
- Earthquake Prone Areas
- Downstream Of Dams

Scenario 5a++ Visitor Safety

Where should we focus our efforts to protect recreating visitors Land Slides?

Value – Concentrated Use Areas:

- Developed Recreation Sites *(weighted using visitation level, capacity, occupancy, and duration – day use vs. overnight)*
- Recreation Residences
- Dispersed Recreation Sites *(predictive model)*
- Travel Corridors *(roads, trails, rivers)*
- Ski Areas/Resorts/Marinas

Risks – dangers:

- Earthquakes (probability and size)
- Landslides (probability – existing & predicted)
- Evacuation limitations / access bottlenecks *(county and other evacuation plans)* (Risk or Feasibility)

Scenario 5a+++: Winter Recreation Safety

Where should we focus our efforts to protect recreating visitors?

Value – Concentrated Use Areas (existing/predicted):

- Developed Recreation Sites *(weighted using visitation level, capacity, occupancy, and duration – day use vs. overnight)*
- Recreation Residences
- Ski Areas/Resorts
- Backcountry Use (Skiing, snowmobiling, ice fishing, etc)
- Travel Corridors *(roads and trails)*

Risks – dangers (existing / predicted):

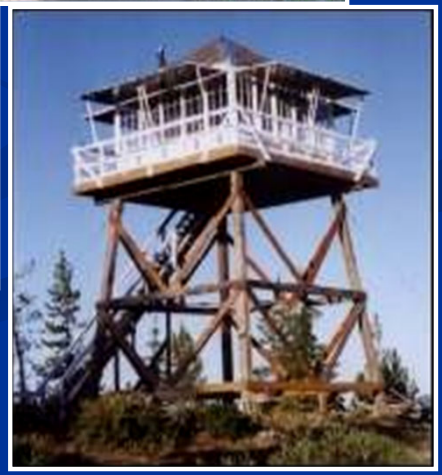
- Avalanches
- Snow Pack Changes *(due to veg, elevation, precip changes, temps)*
- Hazard trees
- Increased use in smaller areas/increased user conflicts
- Unpredictable ice?

Scenario 5b: Recreation Investment Protection

Where should we focus our efforts to protect our infrastructure and investments from fire and beetles?

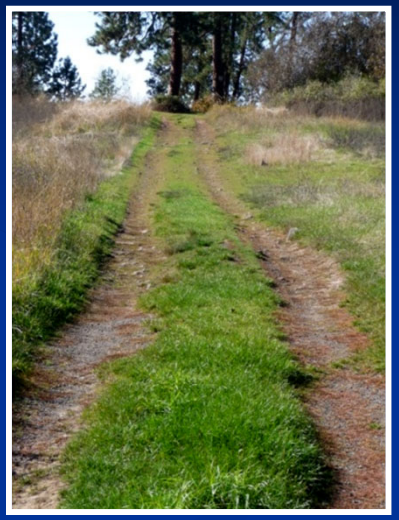
Values – Investments

- Developed Recreation Sites *(site type, development scale, replacement value)*
- Recreation Residences
- Ski Areas
- Resorts/Marinas
- Org. Camps
- Other infrastructure
  - Administrative S
  - Roads & Trails



Scenario 5c: Recreation Setting Restoration

Which primitive recreation settings should we focus efforts to restore/enhance?



Value – Popular Dispersed Recreation Use Areas

- Dispersed Recreation Setting *(Predictive Model)*
  Inventories of dispersed sites *(under way)*
- Access

Risks – vulnerable resources

- Soil erosion *(current and predicted)*
- Declining Water quantity/quality *("Water[illegible]Condition" Layer)*
- Loss of Shade – change in vegetation
- Invasive species occurrence
- Loss/change of understory veg.(using soil layer)
- Changes in shoulder seasons - longer wet season?

Potential Actions:

dispersed site hardening, site closing, rest/rotation, obliteration/rehabilitation, road /trail obliteration/restoration, weather-based thresholds for access management, etc

Scenario 5d: Scenic Integrity Restoration

Where should we focus efforts to restore/enhance scenic resources?

Value: Highly Visibility / Low Scenic Integrity Landscapes

Risks:

- Additional energy development (wind, oil/gas)
- Big, High Intensity Fires
- Higher probability & intensity of insects/disease
- Expanding Urban Interface
- Changes in use patterns/management activities – new areas or types of disturbance
- More visible contrasts due to loss of trees (screening)

Scenario 5e: Scenic Integrity Protection

Where should we focus efforts to protect or enhance scenic landscapes?

Value: High visibility / High Scenic Integrity Landscapes

further prioritize via: Congressional/Special designation Cultural Landscapes, and FLMP SI

Risks: Big, High Intensity Fires

Expanding Urban Interface

More visible contrasts (screening loss)

Loss of veg. diversity

Diminished Air quality

Changes in use patterns/management activities – new areas or types of disturbance

Additional demand for energy development (wind, oil/gas)

Potential Actions: fuels reduction, planting, conservation easements, vista clearing, road obliteration/relocation, etc.

Scenario 5f: Hunting/Fishing

Where should we focus our efforts to enhance/maintain hunting and Fishing opportunities?

Value – Hunting and Fishing Opportunities:

- Wildlife & Fish (Recreational and subsistence)
  - License sales/harvest data by units
  - O/G camps and areas
  - Ceded Tribal Lands
- Access to wildlife & Fish

Risks – dangers:

- Water temperature, water quality, water quantity
- Connectivity
- Habitat conversion from climate change & management activities
- Expanding WUIs
- Migration pattern changes
- New, increased occurrence of invasives (aquatic/terrestrial)
- Increased wildlife/human conflicts

Theme 7: Cultural Landscapes Restoration/Protection

Where should we focus efforts to restore/enhance /protect Cultural Landscapes?

Value: Cultural Landscapes *(prioritize via Special designations, using National criteria, community collaboration)*

Risks:

- Vegetation conversion – loss of historic vegetation (White Bark Pine, Aspen, medicinal plants)
- Changes in use patterns/management activities – new areas or types of disturbance
- Erosion/landslides – loss of sites
- Additional energy development (wind, oil/gas)
- Big, High Intensity Fires
- Expanding Urban Interface
- Increased access/potential disturbance/conflicts
- Flooding (predicted)

Theme 8
Community (varying scales) Resilience

Scenarios:

A) Healthy Communities/Quality of Life

Air, water, wildlife, fisheries, scenery, recreation, cultural landscapes, ecosystem services, and other social values

B) Economically Viable Communities

timber, recreation, grazing, gathering forest products, permitted uses (water developments, energy, communication, monitoring), infrastructure (utilities, transportation)

Feasibility common to all Scenarios

- Ownership
- Forest Plan Allocation/direction
- Other legal requirements, commitments & relationships - tribal
- Social/Political Climate
- Budget
- Partnerships

Theme 5 Rec. Settings and Opportunities

- 5A Visitor Safety – Fire & Hazard Trees
- 5A+ Visitor Safety – Floods
- 5A++ Visitor Safety – Landslides
- 5A+++ Visitor Safety - Winter
- 5B Investment Protection
- 5C Primitive Recreation Setting Restoration
- 5D Scenic Integrity Restoration
- 5E Scenic Integrity Protection

Theme 7 Cultural Landscape Protection

Theme 8 Community Resilience

- 8A Healthy Communities
- 8B Economically Viable Communities

General Recommendations

- EM CORE TEAM – Agree to common set of climate change – related assumptions.
- The mechanics of integration need to be discussed now – at the front end
- Include all Watersheds (i.e. those with <1% FS lands)
- Overlay value with risk prior to assigning watershed scores/priorities
- Critical data layer needed for many resource values – Predicted settlement patterns based on Climate Change

Next Steps…

- Refine products
- Clearly define the task
- Commitments for sub-team leaders and members
- Determine other internal and external partners
- Base next steps and time frames on IRPS revision schedule