Discussion Topics

- What are the outputs of natural resource management?
- How do we measure what we produce?
- What are the outputs of resource recreation management?
- Behavioral approach to management
- Recreation Opportunity Spectrum

Historical “Products or Output” of Natural Resource Management

- Timber
- Wood Products
- Fish
- Game
- Grazing

Willamette National Forest, Oregon

Current Trends in Natural Resource Management

- A balance of...
  - Habitat management
  - Forest products management
  - Ecosystem management
    - Aquatic
    - Riparian
    - Endangered Species
    - Forest health/fire/safety
  - Visitor management
    - Access
    - Allocation/Rationing
    - Impact management/mitigation

Eagle Cap Wilderness, Oregon

Historical “Products & Outputs” of Resource Recreation Management

- How did we measure recreation management?
  - Numerical counts of:
    - Campers
    - Backpackers
    - Anglers
    - Hikers
    - Skiers
  - Satisfaction surveys
  - Success → more is better

Umatilla National Forest, Oregon

But what does counting tell us?

- Is a visit here the same as a visit here?
- or a visit here?
- or a visit here?
Assessing Recreation Equivalency

- Numerical equivalency?
  - Is a visitor camping the same as a visitor picnicking or swimming or rafting or hunting or bicycling?
- Let’s standardize the count!
- **Recreation Visitor Days (RVD)**
  - 1 RVD = 1 person spending 12 hours on-site.
  - 1 RVD = 2 people each spending 6 hours on-site.
  - 2 RVD = 1 person spending 24 hours on-site.

A New Perspective for Outdoor Recreation Management

- The output of recreation resource management is MORE than just providing recreation activities.
- It is important where we provide them...
- The mix of facilities, densities, & proximity is important...
- The mix of rules & regulations, restrictions, assistance, seasons, alternatives, & behavior of others is important...

Functional Relationships

- **Experiences** derived in recreation are related to the setting in which they occur.
- **Settings** are a function of environmental factors, such as...
  - Physical (campsites, trails, facilities, etc.)
  - Social (use density, encounters, behavior)
  - Managerial (rules, regulations, restrictions)
- The range of settings managers provide affect the experiences that people can have.

Lesson 12

A Behavioral Approach

- People seek **opportunities** to engage in preferred **activities**
- In preferred **settings**
  - Preferred Physical setting,
  - Preferred Social setting, &
  - Preferred Managerial setting
- To realize desired **experiences**

Does the setting really matter?

- Is a visit here the same as a visit here? or a visit here?
- or a visit here?
Range of Preferred Physical Environmental Settings

- **Landscape Features**
  - Lakes, rivers, mountains, deserts, forests

- **Facilities**
  - Tent camping, RV camping, pit toilets, showers, visitor centers, trailhead register

- **Access & Remoteness**
  - Paved roads, dirt roads, foot bridges, trail improvements, trail signage, no trails

Range of Preferred Social Environmental Settings

- **Social Interaction**
  - Low to High levels
  - “In” vs. “out” group

- **Proximity & Privacy**
  - Close vs. distant
  - Encounters (many/few)
  - Use density (high/low)

- **Behavior Perceptions**
  - Objectionable behavior
  - Degrees of compliance with regulations

Range of Preferred Managerial Environmental Settings

- **Indirect Management**
  - Minimal management
  - Education (LNT)
  - Trailhead permits
  - Higher risk

- **Direct Management**
  - Maximal Management
  - Use limits
  - Fees (NW Forest Pass)
  - Enforcement or presence
  - Lower risk

Managing a “Spectrum” of recreation opportunities

- “Experience-based setting management”
  - Activities → Settings → Motivation → Benefits

- Selecting recreation opportunities...
  - Range & mix of setting attributes
    - Social
    - Physical
    - Managerial
    - No single place can offer all the possibilities

Recreation Opportunity Spectrum (ROS)

- ROS is based on the premise that people expect certain levels of development related to the character of the setting and the type of recreation they prefer.

- Recall, we (future managers) want to...
  - Provide recreation opportunities (for)
  - Preferred activities (in)
  - Preferred settings (physical, social, & managerial)

- Activity → Setting → Desired Experience

ROS Classes (Spectrum)

- Primitive
- Semi-primitive, non-motorized
- Semi-primitive, motorized
- Roaded natural
- Rural
- Urban/Developed
The output is providing opportunities to participate in preferred activities in the appropriate physical, social, and managerial setting.

The opportunity has changed… from Roaded Natural to Urban/developed

ROS Criteria - Size

- **Primitive**: >5,000 acres
- **Semi-Primitive Non-motorized**: 2,500 min.
- **Semi-Primitive Motorized**: 2,500 min.
- **Roaded Natural**: No Minimum
- **Rural**: No Minimum
- **Urban/Developed**: No Minimum

ROS Criteria - Remoteness

- **Primitive**: more than 3 miles from roads
- **Semi-Primitive (n.m.)**: more than ½ mile and less than 3 miles from roads or motorized.
- **Semi-Primitive (m)**: ½ mile from primitive roads or trails OR ½ mile from improved roads
- **Roaded Natural**: within ½ mile of improved roads
- **Rural and Urban/Developed**: No minimum.

ROS Criteria – Social (use-density)

<table>
<thead>
<tr>
<th>ROS</th>
<th>Trail</th>
<th>Camp</th>
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<tr>
<td>Primitive</td>
<td>&lt;6/day</td>
<td>&lt;3 vis.</td>
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<tr>
<td>Semi-Primitive (n.m.)</td>
<td>6-15/day</td>
<td>&lt;6 vis.</td>
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<td>Semi-Primitive (m)</td>
<td>Low to Moderate</td>
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<tr>
<td>Roaded Natural</td>
<td>(l-m trail &amp; m-h roads)</td>
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<tr>
<td>Rural</td>
<td>Mod/high in dev. areas</td>
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<tr>
<td>Urban/Developed</td>
<td>Expect large numbers</td>
<td></td>
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A look at an ROS Map

- **South Fork Clearwater N.F.**
ROS Uses

1. Inventory & Classification System
2. Guides management decision making
3. Communication tool
   • Letting the public know what’s available

Lesson 13

ROS – Inventory & Classification

- As a land Inventory and Classification System. (ZONING primitive, semi-primitive or roaded natural areas)

ROS as a Planning Tool

- Provides a mechanism to inventory existing opportunities;
- Analyze the effects of other resource activities;
- Estimate the consequences of management decisions on planned opportunities;
- Link visitor desires with recreation opportunities;
- Identify complementary roles of all multiple-use recreation suppliers (public & private);
- Develop standards and guidelines for planned settings and monitoring activities.

Keeping the ROS in balance

Implications of ROS Management

- Anomalies in the Physical, Social, or Managerial setting can significantly change what you are providing along the spectrum.
- Managers should clearly communicate what is being provided.
- The public can then choose where it is appropriate to participate in recreation activities they desire.
Functional Relationships in ROS

- **Experiences** derived from recreation are related to the **setting** in which they occur, and...
- **Settings** are a function of environmental factors we manage (physical, social, & managerial).
- Managers provide a range of settings that affect the **opportunities** for people to pursue desired **experiences**.

ROS is based upon a behavioral approach to Recreation

- We manage natural settings to provide recreation opportunities.
- People seek opportunities to engage in preferred activities --
  - In preferred settings --
    - Physical setting,
    - Social setting,
    - Managerial setting
- To realize desired **experiences**
  - Managers who change these...
  - Will also change these!

One More Thing...

- Natural Resource Management
- Resource Recreation Management
- Behavioral Approach...and
- In case you forgot -- ROS
  - We provide Opportunities to participate in Desired Activities → in Preferred Setting → to obtain Desired Experiences

Salmon River, Idaho