Recreation Opportunity Spectrum "ROS"

A behavioral approach to planning & management

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CSS 287

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

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Historical *"Products or Output"* of Natural Resource Management

- Timber
- Wood Products
- Fish
- Game
- Grazing

Willamette National Forest, Oregon

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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

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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

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But what does counting tell us?

Is a visit here   the same as   a visit here?   or a visit here?

= ?   = ?

or a visit here?

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Assessing Recreation Equivalency

- Numerical equivalency?
  - Is a visitor **camping** the <u>same</u> as a visitor **picnicking** or **swimming** or **rafting** or **hunting** or **bicycling**?
- Let's standardized 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.

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A New Perspective for Outdoor Recreation Management

- The <u>output</u> of recreation resource management is MORE than just providing recreation <u>activities</u>.

- It is important **where** we provide them...
- The <u>mix</u> of facilities, densities, & proximity is important...   Physical Setting
- The <u>mix</u> of rules & regulations, restrictions, assistance, seasons, alternatives, & behavior of others is important...   Social Setting

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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 <u>range</u> of settings managers provide affect the experiences that people can have

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Lesson 12

A Behavioral Approach

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

© Greg Daniels

Does the setting really matter?

Is a visit here   the same as   a visit here?   or a visit here?

=
?

=
?

or a visit here?

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Range of Preferred Physical Environmental Settings

Marion Lake, Willamette N.F.

- **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

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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

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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
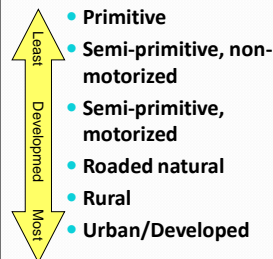   - No single place can offer all the possibilities

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**

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ROS Classes *(Spectrum)*

Least — Developmed — Most

Most — Remote — Least

- **Primitive**
- **Semi-primitive, non-motorized**
- **Semi-primitive, motorized**
- **Roaded natural**
- **Rural**
- **Urban/Developed**

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ROS Management Outputs

The output is providing *opportunities* to *participate* in preferred activities in the appropriate *physical, social, and managerial setting*.

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ROS Management Outputs

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

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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

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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**: w/in ½ mile of improved roads
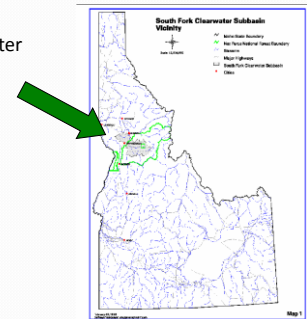- **Rural and Urban/Developed**: No minimum.

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ROS Criteria – Social (use-density)

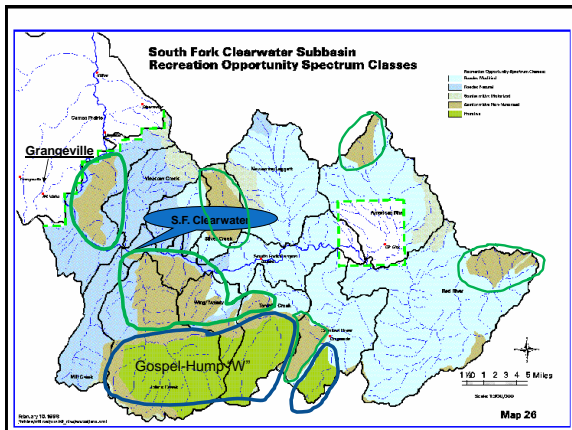| ROS	Trail	Camp
Primitive	<6/day	<3 vis.
Semi-Primitive (n.m.)	6-15/day	<6 vis.
Semi-Primitive (m)	Low to Moderate	
Roaded Natural	(l-m trail & m-h roads)	
Rural	Mod/high in dev. areas	
Urban/Developed	Expect large numbers	

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A look at an ROS Map

- South Fork Clearwater N.F.

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South Fork Clearwater Subbasin
Recreation Opportunity Spectrum Classes

Grangeville

S.F. Clearwater

Gospel-Hump "W"

Map 26

ROS Uses

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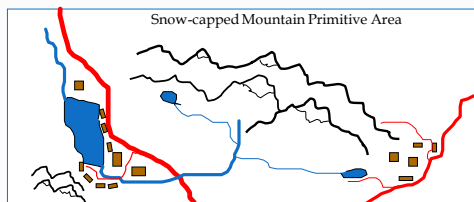   • Letting the public know what's available

Lesson 13

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ROS – Inventory & Classification

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

Snow-capped Mountain Primitive Area

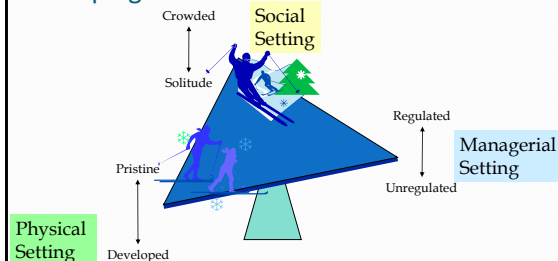Primitive | SpN-M | SpM | Roaded Natural | Rural | Urban developed

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ROS as a Planning Tool

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

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Keeping the ROS in balance

Crowded
Social Setting
Solitude
Regulated
Pristine
Managerial Setting
Unregulated
Physical Setting
Developed

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Implications of ROS Management

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

• *Primitive*
• *Semi-Primitive Non-motorized*
• *Semi-primitive Motorized*
• *Roaded Natural*
• *Rural*
• *Urban/developed*

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Functional Relationships in ROS

- **Experiences** derived from recreation are related to the <u>setting</u> 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**.

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ROS is based upon a behavioral approach to Recreation

- We manage natural settings to provide recreation opportunities.
- People seek opportunities to engage in preferred <u>activities</u> --
- In preferred <u>settings</u> --
  - Physical setting,
  - Social setting,
  - Managerial setting
- To realize desired <u>experiences</u>

Managers who change these...

Will also change these!

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ROS

Urban/developed

Primitive

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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

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