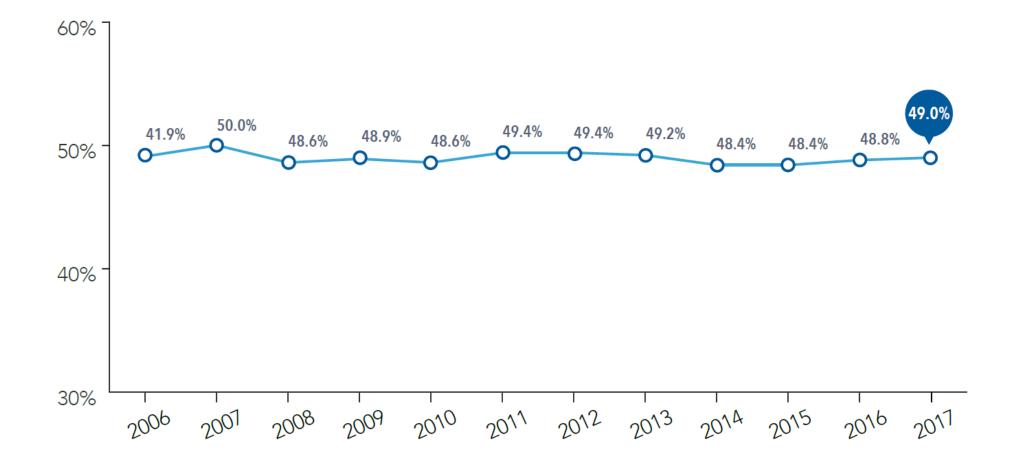
Outdoor recreation impacts and management



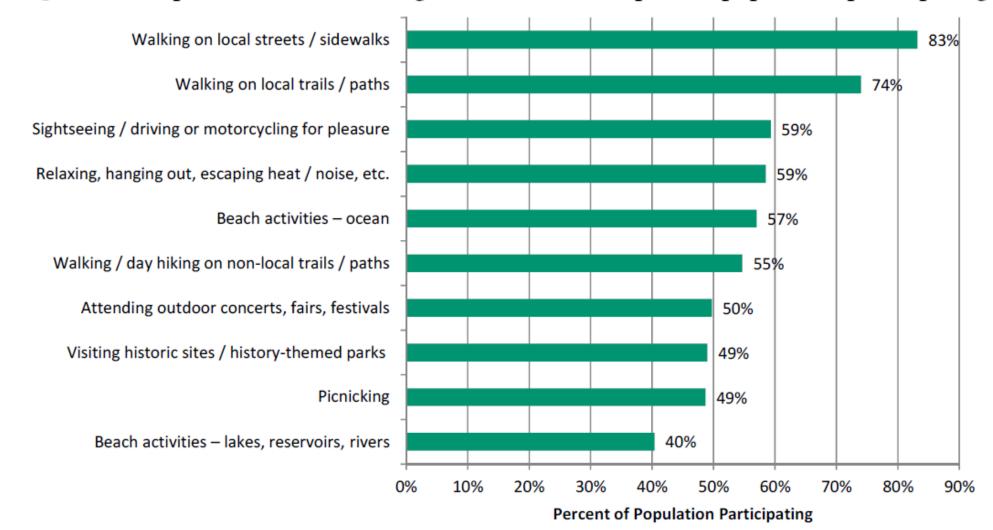
#### Dr. Ashley D'Antonio

Assistant Professor in Nature-Based Recreation Management





Outdoor Foundation Participation Report, 2018



#### Figure 2.2. Top ten activities for Oregon residents, 2017, percent population participating

#### SCORP



# If recreation is permitted...

## ... some degree of impact is **inevitable**.



Illustration by Michael Byers

# **Recreation Ecology**

## the study of the environmental consequences of outdoor recreation/nature-based tourism activities and their effective management.

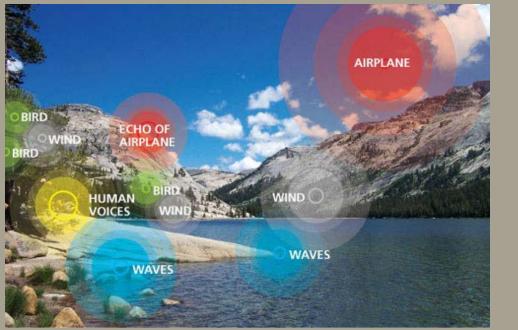
**Interdisciplinary field that combines social and ecological sciences** 



# Soil & Vegetation

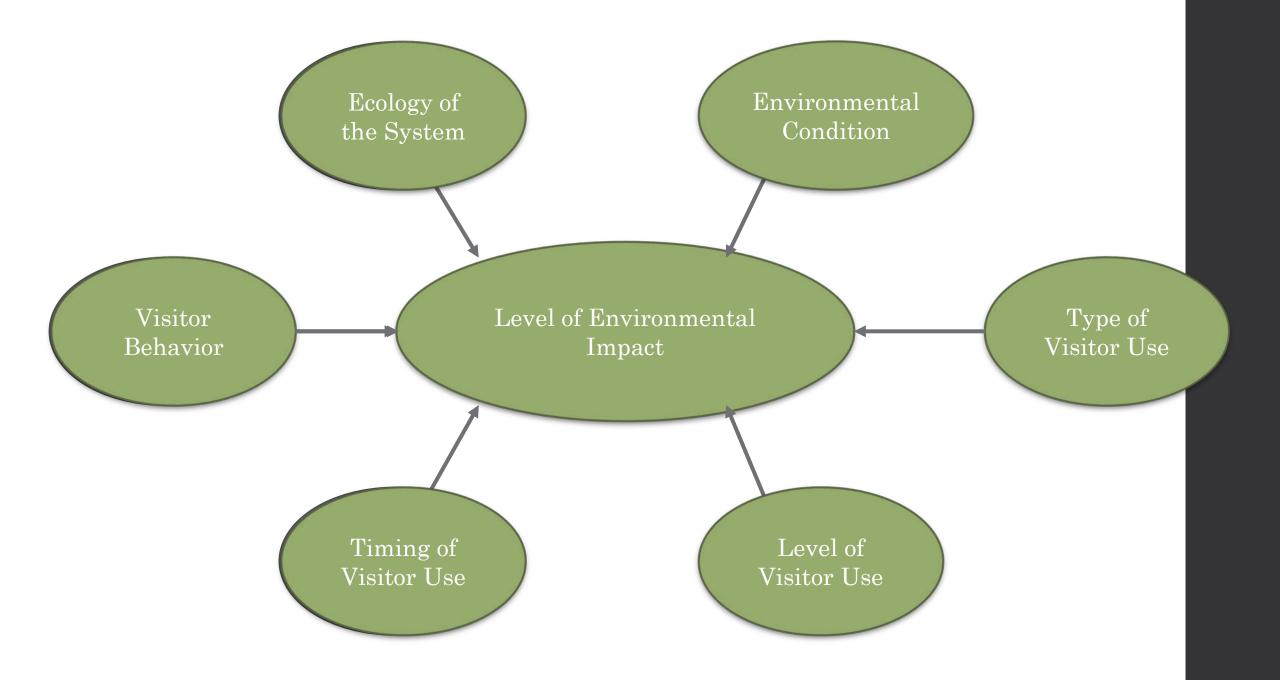


# Wildlife & Water





# Air Quality & Soundscapes

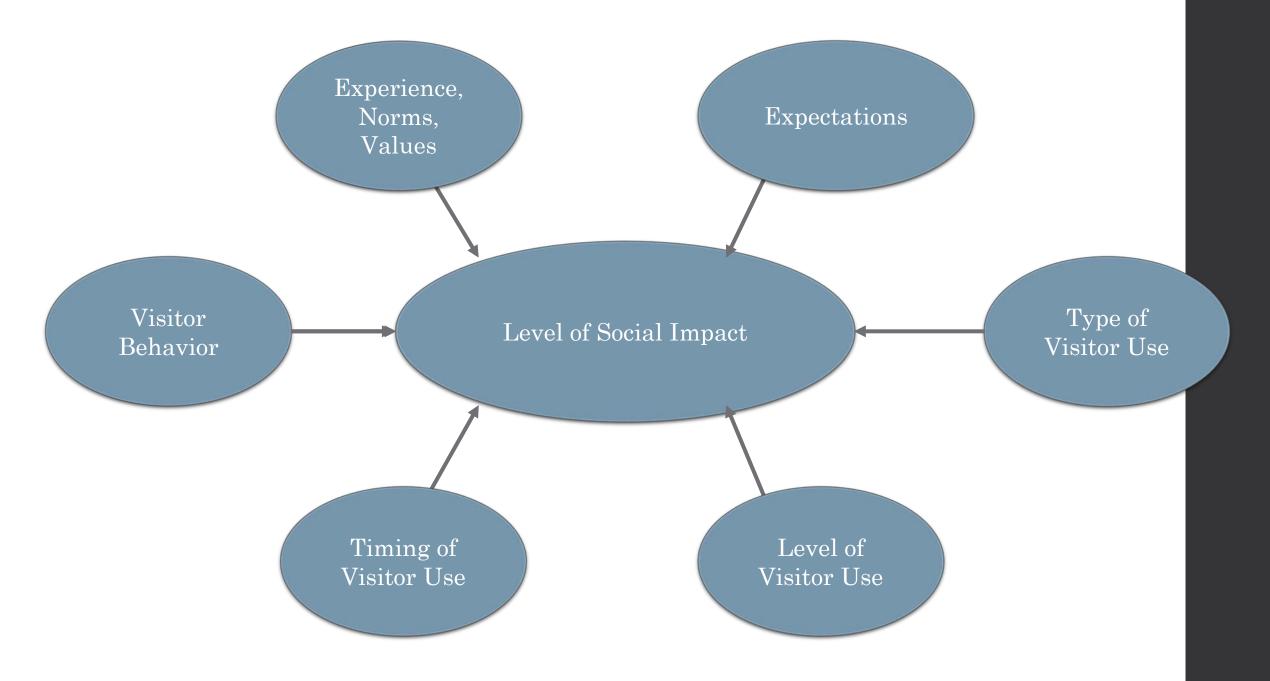


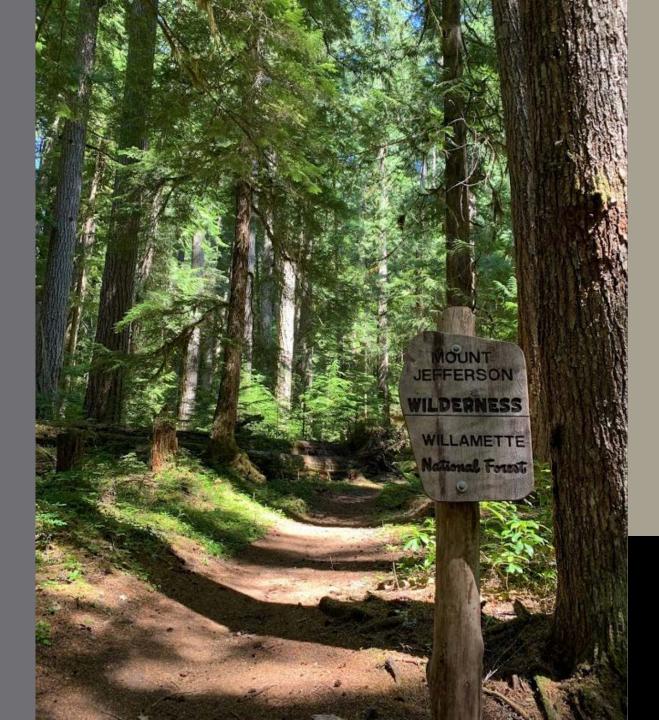
# Nordic Skiers Only



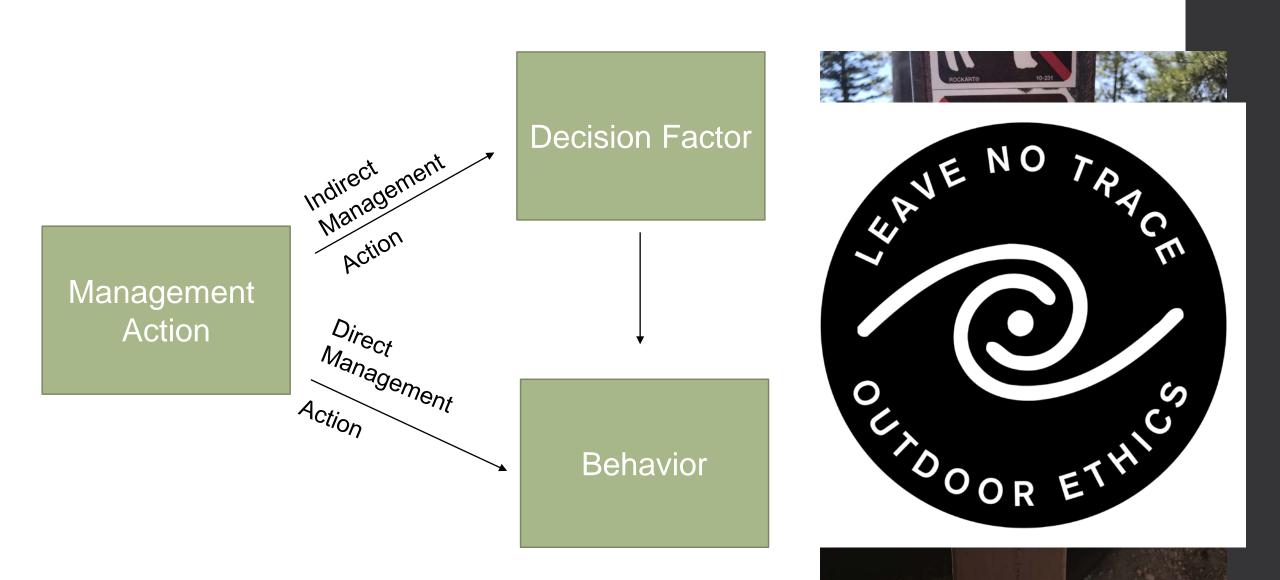


Social





How do you manage for these social and ecological impacts?





## Examples of Direct Management

• Fines

• Spatial and temporal zoning of use

• Limit usage via entry zone

• Limit length of stay

# Advantages of Direct Management

Requires less knowledge about users

 Management maintains high degree of control

- Disadvantages:
  - Enforcement & compliance
  - Equity issues

From inside Petrified Forest National Park by theft, you pay from \$325 on up, including possible jail time.

Los Cost

066706

Colonies Class Tree

loand in service

You are no

to keep any

United States District Court

Visitation Notice

Petrofied Wood

OBN -SIMIT

CFR = 1(d)(1)(d)

30



### Examples of Indirect Management

- Design of original setting
- Improve/don't improve access roads
- Installation of facilities
- Education & interpretation

### Advantages of Indirect Management

- Generally more accepted by visitors
- Generally less cost intensive
- Less potential for confrontations and conflict
- Less of a burden on the visitor
- Involves and empowers the visitor

- Disadvantages:
  - Effectiveness
  - Delivery (timing & method) is important



### Best approach?





- 1. Plan Ahead & Prepare
- 2. Travel & Camp on Durable Surfaces
- 3. Dispose of Waste Properly
- 4. Leave What You Find
- 5. Minimize Campfire Impacts
- 6. Respect Wildlife
- 7. Be Considerate of Other Visitors





# Why do we still see impacts?

- Constraints:
  - Funding
  - Staff
  - Time
- Visitor compliance & enforcement

Stakeholder "buy-in"

- Difference in values and norms
  - can be especially relevant in social conflict

# How to decide where, when, and how to allow recreation?



Interagency Visitor Use Management Framework

# "Build the foundation"

- What is the purpose of this recreation management project?
  - How does it align with the mission of the land managers/agencies?
- Compliance with relevant policies
- Interdisciplinary team that is engaged with the public
  - What makes this area unique? What values are associated with these lands?
- Inventory
  - \* Social  $\rightarrow$  values, preferences, current use levels, cultural resources, etc.
  - ♦ Ecological  $\rightarrow$  habitat types, watershed, wildlife, etc.
  - \* Managerial  $\rightarrow$  \$, staff, management capacity, etc.

Outdoor Recreation Management Decisions  Management Objectives = broad, narrative statements that articulate the desired conditions for the protected area – the natural resources, visitor experiences, and level of management presence.

• **Desired Conditions** = What do you want the area to look like in the future?

Does NOT address the "how"



LANDS IN TRUST PROTECTED FOREVE DESCHUTE LANDTRUST.ORG





#### **OUR VISION FOR WHYCHUS CREEK**

The Deschutes Land Trust has worked since 1995 to protect the forests, meadows, and creeks that Central Oregonians people and wildlife—need to thrive. During that time, we've directed much of our energy toward conserving Whychus Creek, a tributary of the Deschutes River that flows from mountain glaciers, through ponderosa pine forests, past lush creekside meadows, and into desert canyons. We've done this work inspired by a vision of a restored and revitalized Whychus Creek that is an ecological and social centerpiece of our community.

#### IMAGINE A WHYCHUS CREEK THAT IS...

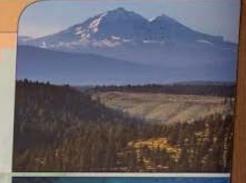
#### PROTECTED FOREVER

Through strategic land conservation the Land Trust will create a permanently protected wildlife corridor along Whychus Creek. HEALTHY

The Land Trust will return ecological well-being to Whychus Creek and its surrounding lands so salmon, steelhead, deer, elk, songbirds, and eagles can thrive.

#### CONNECTED

The Land Trust believes in inspiring people of all ages to connect with Whychus Creek. This is why we offer guided hikes, trails, and interpretive opportunities at our Preserves for people to explore and enjoy.





The state is



Now is the time to realize our vision for Whychus Creek. Together we can ensure a bright future for Whychus Creek! Join us today . . .

## Take Home

Recreation → increasing, many benefits to individuals
& society

Recreation → even non-consumptive is not impact-free

 It might not be appropriate to have "all the recreation, everywhere, at all times"

## Questions

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