



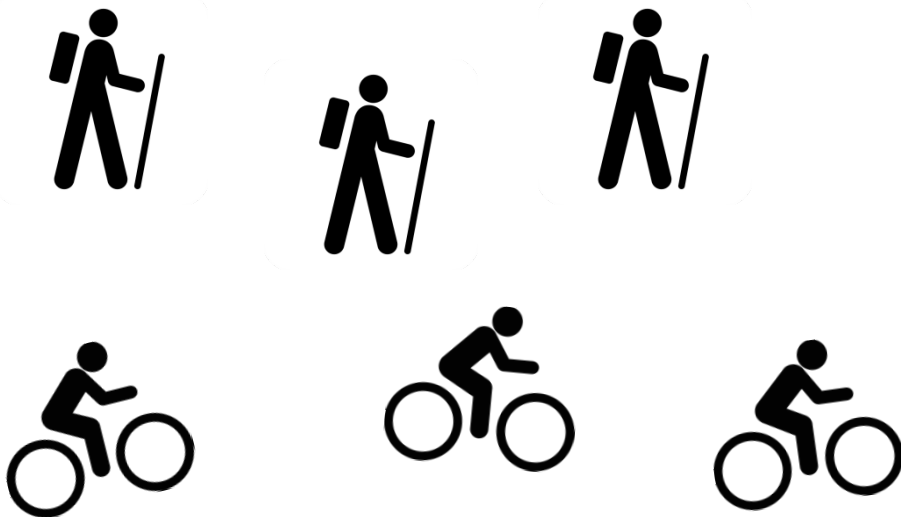
Joss Mountain Recreation

Adaptive Environmental Management

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Environmental Management

- Complexity and uncertainty in management of natural systems
- Combined with interactions between natural systems and people



Has lead to....Adaptive Management

- Purposeful design of policies to enhance and inform subsequent action
- How to be adaptive:
 - Monitor indicators
 - Set acceptable limits
 - Trigger corrective Actions



Joss Pass Trail



Joss Northwest Ridge Trail



Joss Mountain Environmental Values

- Grizzly bear
 - Largest remaining intact grizzly population
 - 2017 Motorized Vehicle Closure
- Caribou
 - Locally extirpated but must maintain habitat
- Mountain goat
 - Sensitive to helicopters
- Streams/Riparian
 - Trail design and construction

Key Environmental Impacts

- Avalanche paths are prime grizzly bear habitat
 - Extensive digging, scat, tracks, rub trees
- Relative effects of recreation
 - Grizzly bears show strongest avoidance for mountain bikes and motorized vehicles



Management Recommendations?

- If our goal is to:
 - Reduce environmental damage, especially within sensitive ecosystem with Secwepemc First Nations values
- Do we:
 - Close Joss Pass Trail to recreation
 - Close Joss Pass Trail to mountain bikes
 - Upgrade Joss NW Ridge Trail

Adaptive Management

- **Desired outcome**
 - Recreation that does not push grizzly bears out of prime habitat
- **Monitor indicators**
 - Signs of use (digging)
 - Trail cameras (numbers, cubs)
 - Record encounters
- **Corrective actions**
 - Improve signage (large groups, no dogs)
 - Seasonal closures
 - Close trail to mountain bikes
 - Complete closures

2021 Trail Cameras

- 2 cameras for 3 ½ months (early July to mid October)
- Joss Pass and avalanche paths, rub trees
- 4 grizzly bears, 1 female with cubs
- October highest number of grizzly bears
- Female moose, black bear, bobcat





10/10/2021 09:12 AM -04°C)

SPYPOINT SOLAR-DARK



09/20/2021 03:09 PM 00°C

SPYPOINT SOLAR-DARK



07/20/2021 01:37 PM 41°F

SPYPOINT SOLAR-DARK



08/21/2021 10:32 PM 41°F

SPYPOINT SOLAR-DARK



07/25/2021 06:35 AM 51°F

SPYPOINT SOLAR-DARK



09/05/2021 10:44 AM 11°C (

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Thank you

- Recreation Sites and Trails BC
- Adrian Bostock, Shuswap Trail Alliance
- Ryan Gill, Tarn Environmental Consulting