1 Hiking & Backpacking

2 Environmental Ethics
   • Ethics: agreed upon restrictions on behavior for the overall good of a community
     – values; knowing "right & wrong"
   • Land Ethic: behavior is right when it preserves the integrity, stability, & beauty of the outdoor environment
     – knowing the “impact”

3 Backcountry Behavior
   • Observing others & recognizing our own backcountry behaviors.
     – Consider:
       • Trail use
       • Campsites
       • Use of fire
       • Sanitation

4 Consequences of environmental impact
   1 • Minimizing impact on the environment
      – Preserves:
        • “natural” character
        • quality & purity of natural resources
      – Increases capacity to support rec. use.
   2 • Ignoring one’s impact on the environment
      – Deteriorates:
        • “natural” character
        • quality & purity of natural resources
      – Decreases capacity for rec. use.

5 “Leave No Trace”
   • USFS awareness campaign that fosters an attitude, or “land ethic,” with regard to seven principles:
     1. Planning & preparation
     2. Travel/camp on durable surfaces
     3. Disposing of waste properly
     4. Leave what you find
     5. Minimize campfire impacts
     6. Respect wildlife
     7. Consideration for other visitors

6 Excursion Behavior
• Good group behavior: “…the motivation & character to be concerned for others as one is for oneself” (Petzoldt, 1984)
  – Set expectations & group norms

7 □ Hiking & Trail Technique

1 □ • Conserve Energy
  – rhythmic breathing
  – pace
  – rest step, breaks
  – eating & drinking

• Hiking
  – follow trail
    • watch for markers
    • careful attention to map
    • trail courtesy
  – uphill
    • stand straight to allow for recovery of footing (use rest step)
    • small steps
  – downhill
    • bend knees/small steps
    • minimize friction (boots)
    • contouring
  – impact considerations
    • stay on trail (treadway)
    • trail litter
    • human waste

8 □ Trail Logistics

1 □ • Responsible to others in group

• Group size concerns
  – safety
  – environmental impact
  – psychological impact
  – managing agency policies

2 □ • Group roles
  – Leader
  – Scout
  – Smoother
  – Logger (record keeper)
  – Sweep

9 □ Packs

• Two basic types:
  – external
    • rigid & stable aluminum frame
    • distributes weight evenly
  – internal
    • concealed frame in wall of pack
    • flexible (can be conformed to back)
• more adjustable to torso length
• rests closer to back

10  Stoves
• Two basic types:
  – liquid fuel
    • white gas, kerosene, alcohol*
    • pro: fuel is readily available
    • con: high maintenance
  – compressed gas
    • butane or propane
    • pros: easy on/off, low maintenance, easy temp. control
    • cons: hard to tell level of fuel, canister disposal
*alcohol or butane do not burn well over 7000’

11  Guidelines for stove use
• Know how to use/assemble your stove.
• Make sure there is enough fuel
• Work from the side, not over the top, of your stove.
• Do not re-light a hot stove until it has cooled.
• Do not use your stove inside your tent.
• Emergency:
  – douse: water/sand; put an empty pot over stove (lack of oxygen)

12  Water
• Pack it in or find a water source.
• Why should water be treated?
  – Giardia (bacteria) & intestinal viruses
• Treatment
  – boiling (a full boil expends fuel)
  – filtration (easy but slow with some risk)
  – chemical treatment (easy but takes time, affects taste, with some risk)
    • iodine & chlorine tabs

13  Food
• What to consider
  – length of trip
  – preparation
  – weight
  – packing/re-packing
  – spoilage

14  Food protection & disposal
• Considerations for protection
  – ethics (feeding wildlife)
  – safety (rabid animals)
  – sanitation (animals licking your pots)
• Protection (hanging food/waste)
  – 200+ feet away
  – 12 feet high & 6 feet away from tree
• Disposal
  – drain waste water away from site
  – pack out food waste, or burn in hot fire

15 Cooking
• hygiene
• burning, or sticking
• spices
• efficiency (keep a pot on stove)
• pack fuel away from food
• cooking at altitude
  – dinners that cook in <20 min add 1 min/1000’ of elevation – for >20 min add 2 min/1000’

16 Eating
• Breakfast: cereals, oatmeal, grits, etc.
• Lunch & Trail: granola, fruit (dried), heavy breads, tuna, food bars (energy), cheese, GORP, etc.
• Dinner: pasta, rice (brown), soups, beans, dehydrated meals, cheese, salami, etc.
• Misc. sugar, coffee/tea, powdered milk, drink mix, spices, oil, butter, etc.

17 Clothing
• Material Characteristics
  – Wool Pros: good insulator, retains warmth when wet, Cons: is bulky, can shrink.
  – Cotton Pros: comfortable, conducts heat away from body, Cons: absorbs water and sweat & loses insulative value.
  – Synthetics Pros: lightweight, absorb no water, help conserve heat, dry quickly, Cons: cost, can melt/burn from heat.
    • Polypropelene shirts, undergarments
    • Nylon/Gore-Tex shells

18 Fires
• Considerations
  – dead wood, safe location, impact, permitted?
• Functions
  – emergency, food prep, aesthetic value, heat (warmth & drying)
• Site Considerations
  – soil type, wind, distance from camp, established fire sites
• Restoration
  – burn wood to ash, douse until cool, spread

19 [□] Latrines
  • Impact of improper disposal
    – aesthetics
    – physical (contamination can cause illness)
    – environmental (animals affected)
  • Cat-holes (process)
    – small hole 6+” deep, use it only once, do away from camp, water & trails, cover hole, & pack out TP (if necessary)
  • Urination (use same general area)

20 [□] Packing the Backpack
  • Consider weight distribution
    – Flat terrain
      • Higher center of gravity
        – load light gear in bottom of pack; stack heavier gear on top.
    – Steep terrain
      • Lower center of gravity
        – load heavier items lower in pack & closer to body