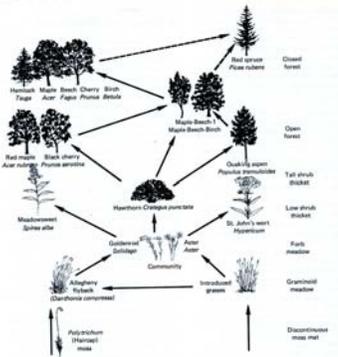


# Ecosystems are complex




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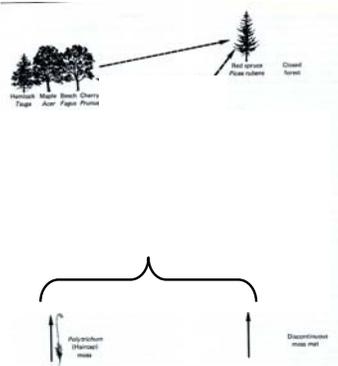
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# Why simplify?




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# Why simplify?




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## Food and fiber

Human population: 6.5 billion

**Human Population** = one of **four spikes**  
(*God's Last Offer*, Ed Ayres)

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## Changing social values

- Forests planted for wood production
- Introduction of nonnative species

**Spike: Consumption**

- Managing for biological diversity

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## Managing for biological diversity

- Inventory
- Identify appropriate management units
- Establish and monitor benchmarks
- Promote diversity
- Explore alternatives
- Reflect before acting

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### Inventory



**Spike:** Extinction

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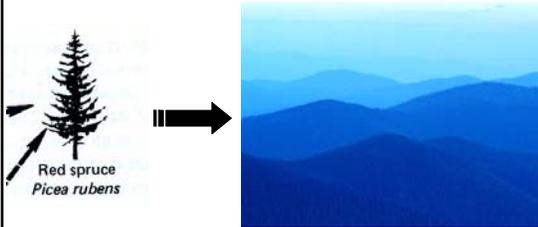
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### Multiple management units



Panoramic views,  
large predators,  
**Atmospheric CO<sub>2</sub> (Spike)**

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### Establish benchmarks



“Adaptive” management *requires* monitoring

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### Promote diversity



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### Explore alternatives



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### Reflection



Thinking is the hardest work there is, which is probably the reason so few engage in it (Henry Ford)

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## Question the Answers



Education boils down to acquiring the desire, confidence, and courage to *question the answers* (Louis Schmier)

**Evaluate trade-offs; define goals and objectives**

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## Goals and objectives

**“to develop the scientific and technical means for the protection, maintenance, and restoration of life on Earth: species, ecosystems, and the processes that sustain them” (SCB mission)**

- Site-specific
- Sustainable management of ecosystem processes

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## Ecosystem management

Sustainable management of ecosystem processes



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### Goals, objectives, context

- Measurable
- Quantifiable
- Sociopolitical context




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### Goals, objectives, context

- Measurable
- Quantifiable

cf. health, integrity




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### Health, integrity

- **Relativism**
- **Postmodernism**
- Social constructivism
- Mysticism

} Cultural adversaries  
of science and reason  
(Weinberg, *Facing Up*)

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## Creating the revolution

Suppose you had had the revolution . . . , and you had the kind of society you wanted. How would you live, you personally, in that society? Start living that way now! Whatever you would do then, do it now. When you run up against obstacles, people, or things that won't let you live that way, then begin to think about how to get over or around or under that obstacle, or how to push it out of the way, and your politics will be concrete and practical.\*

\*Paul Goodman (1970, quoted by John Holt, *What Do I Do Monday?*)

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## Sustaining humanity

- Human role in nature?
- Four spikes
- Last chance?



State of the World, 2003

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