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Wednesday

- Ecological Risk Assessment
- Risk Management & Public Decision-making

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Learning Objectives I



- Compare and contrast the **public and private aspects** of human and ecological environmental risks
- List the three basic components of ecological risk assessment and their purpose

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Learning Objectives II



- Explain how Risk Assessment maybe both science and not-science
- State three general ethical questions about environmental public decisions

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Learning Objectives III



- Describe ethical accountability in the three public implementation methods
- Describe the four parts of making public decisions

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Public Risk Decision-Making

- Establishing the goals
- Defining the target of change (the problem)
- Selecting implementation methods
- Determining what success means

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Public Risk Decion-Making

- Problem Surfaces
- Risk Assessment
- Public Policy Decision-Making on Risk Management
- Public Interventions
- Accountability

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Ecological Risk Assessment

Midwest Ecological Risk Assessment Center

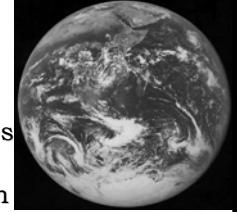
<http://www.merac.umn.edu/home.htm>

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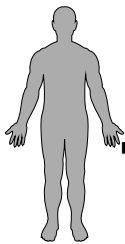
Ecological Risk Assessment

Transform scientific data into meaningful information about the risk of human activities to the environment, so that risk managers can make informed environmental decisions.



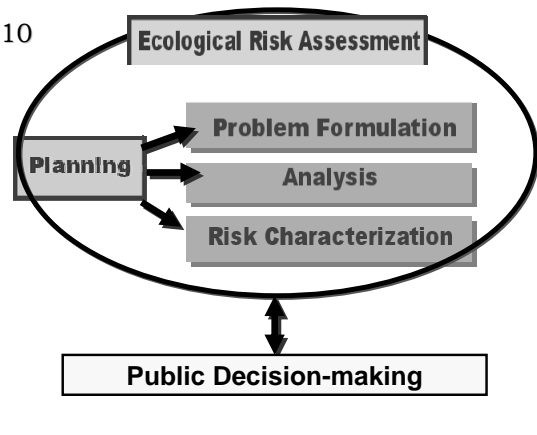
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Environment Risks



- Human Health
 - Public Health (population-based)
 - Private Medicine (individual cure and care)
- Ecological Health
 - Species & ecosystem-based
 - Humans: public & private interests

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Risk Assessment

Some parts are estimates based on assumptions and may use the language and tools of science - but are not science

- Change the assumptions change the risk characterizations
- Assumptions often source of controversy

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Risk Management & Public Interventions

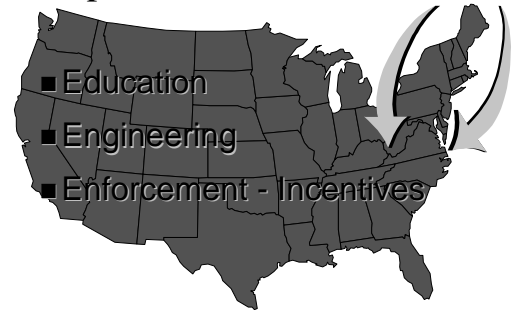
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After Risk Assessment... Public Risk Management Tasks

1. Prioritize risks
2. Decide which risks are acceptable and which risks are unacceptable
3. Decide how to manage unacceptable risks

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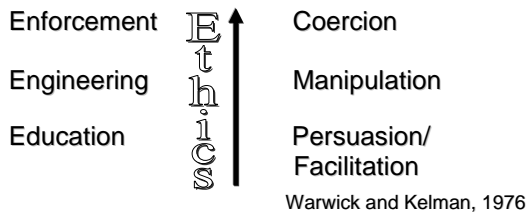
Implementation Methods



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Ways of Thinking

Selecting the method...
and type of implementation...



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Public Interventions

Changing the relationship between
people and...

- other people
- the environment
- knowledge
- ways of thinking
- public decision making

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Making Public Ethics Decisions

- Establishing the goals
- Defining the target of change
(the problem)
- Selecting implementation methods
- Determining what success
means

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Ethical Questions for Public Environmental Decisions

- How should we decide how safe is safe enough?
- How should we measure the worth of a functioning ecosystem?
- How ought we distribute risks & benefits?
- What values should be used in prioritizing risks and benefits?

Adapted from Schrader-Frechette (1985)

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