Ecological Economics and Puget Sound

Earth Economics

Dave Batker

Eartheconomics

Macroeconomics

Microeconomics

Eartheconomics

Macroeconomics

Microeconomics

Eartheconomics

Macroeconomics

Microeconomics

Four Goals of Ecological Economics

- Scale

- Efficiency
- Justice
- Good Governance

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- Scale

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High Quality of Life

- Built Capital
- Social Capital
- Human Capital
- Natural Capital

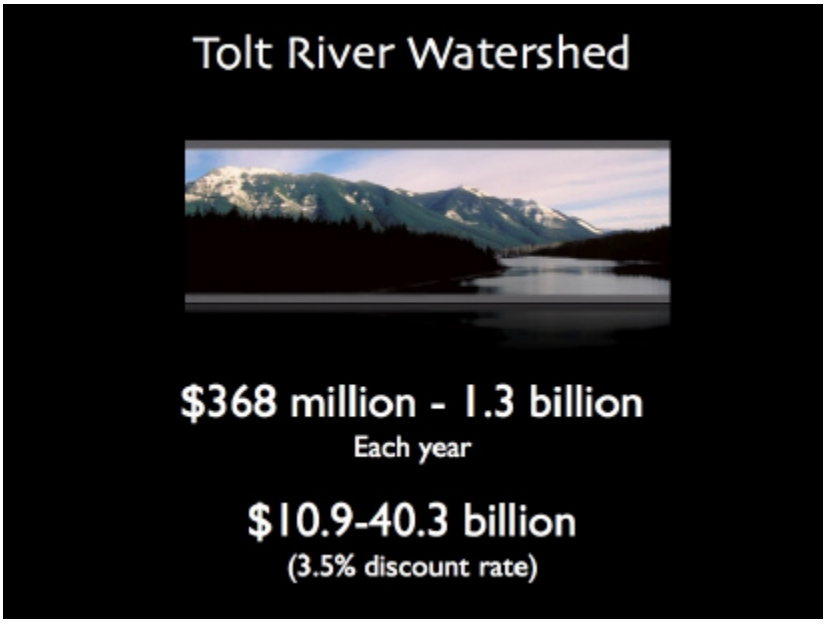




GOODS
Food
Raw Materials
Genetic Resources
Medicinal Resources
Ornamental Resources
HABITAT
Refugium
Nursery


REGULATION
Gas
Climate
Disturbance
Water regulation
Water supply
Soil retention
Soil formation
Nutrient regulation
Waste treatment
Pollination
Biological Control


INFORMATION
Aesthetic
Recreation
Cultural/artistic
Spiritual/historic
Science/education


Tolt River Watershed
$368 million - 1.3 billion
Each year
$10.9-40.3 billion
(3.5% discount rate)

Ecosystem Category	Low	High
Forest	$1,201,511,157	$4,428,245,805
Grasslands and Shrub lands	298,902,625	1,147,735,880
Agriculture and Pasture	5,939,710	21,451,772
Urban	6,684,187	35,312,055
Lakes, Rivers, Ponds, and Reservoirs	3,894,343	24,252,660
Wetland	23,520,743	83,176,081
Coastal	5,074,232	27,301,226
High Altitude Rock & Ice	22,808,721	78,146,221
Total Values	**$1,568,335,718**	**$5,845,621,700**

Value of the Green River Watershed

$1.5-5.8 billion

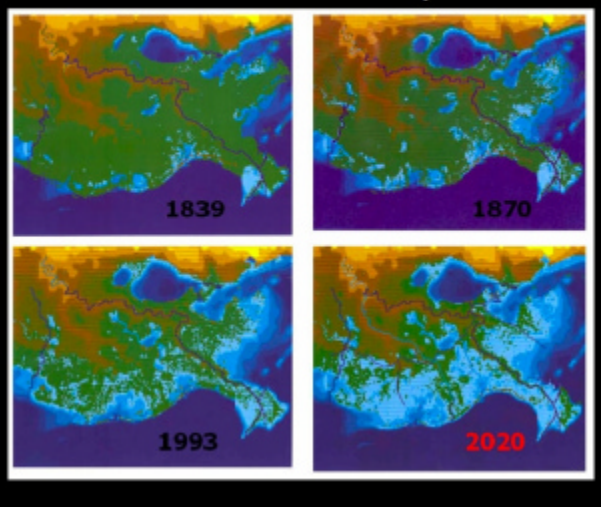
Each Year

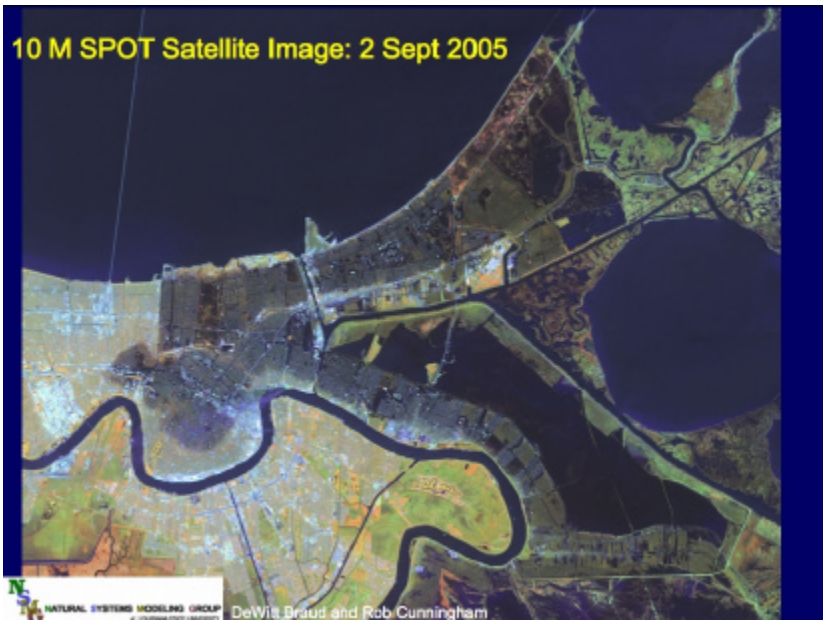
Net Present Value

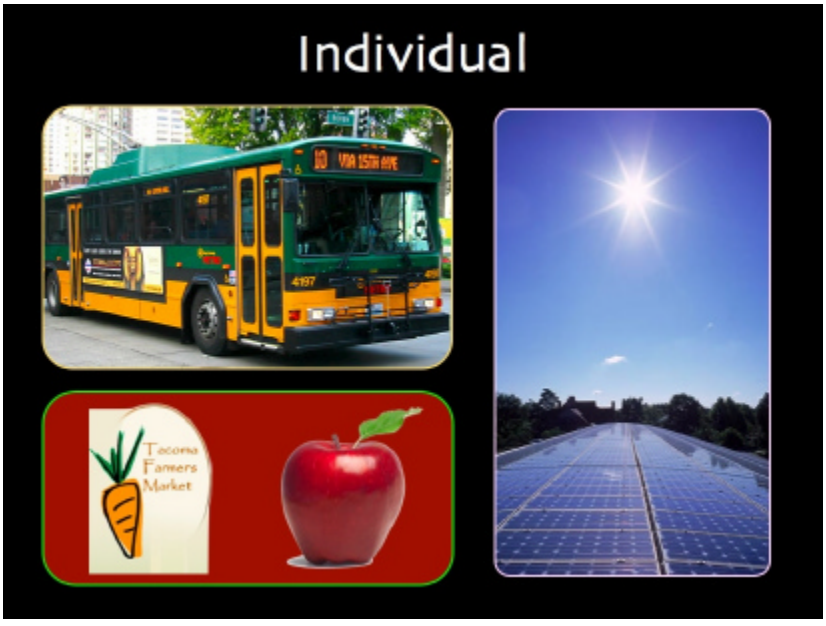
$48.5-180.7 billion

(3.5% discount rate)

Katrina and Scale: Loss of local ecosystem




10 M SPOT Satellite Image: 2 Sept 2005
NATURAL SYSTEMS MODELING GROUP
DeWitt Braud and Rob Cunningham


Individual
Tacoma Farmers Market

Corporate

e-waste recycling

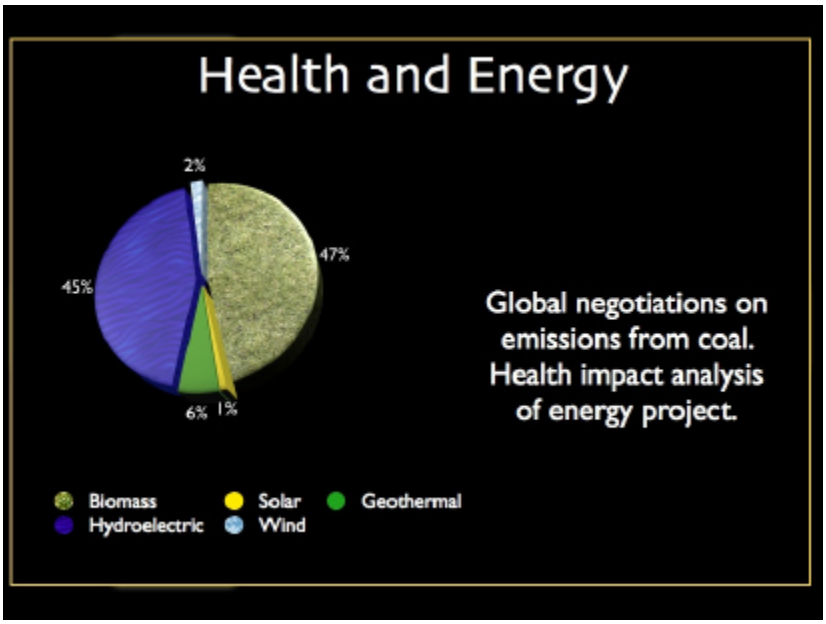
vs

	Energy	Agriculture	Health	Climate	Investment	Tax Policy
Energy						
Agriculture						
Health						
Climate						
Investment						
Tax Policy						

Health and Climate

Reduction of threats to health from the energy sector: less mercury pollution from coal.

80
Hg
Mercury
200.59


Health and Energy
2%
47%
45%
6%
1%
Biomass
Hydroelectric
Solar
Wind
Geothermal
Global negotiations on emissions from coal. Health impact analysis of energy project.