

Partnership for Environmental Technology Education (PETE)

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www.ateec.org/pete/

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**2008 NEIHS
WETP Wkshp
North Carolina**



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Environmental Justice and Good/Green Jobs for All

Community Colleges Preparing for the Green Jobs Revolution



PETE

- National Not -for-Profit Organization
 - ***Mission: To provide leadership in environmental education and training through community and technical college partnerships with business, industry, government, and other educational providers***

“PETE – A Source for Green Training & Education for Workforce Development.”

PETE Network

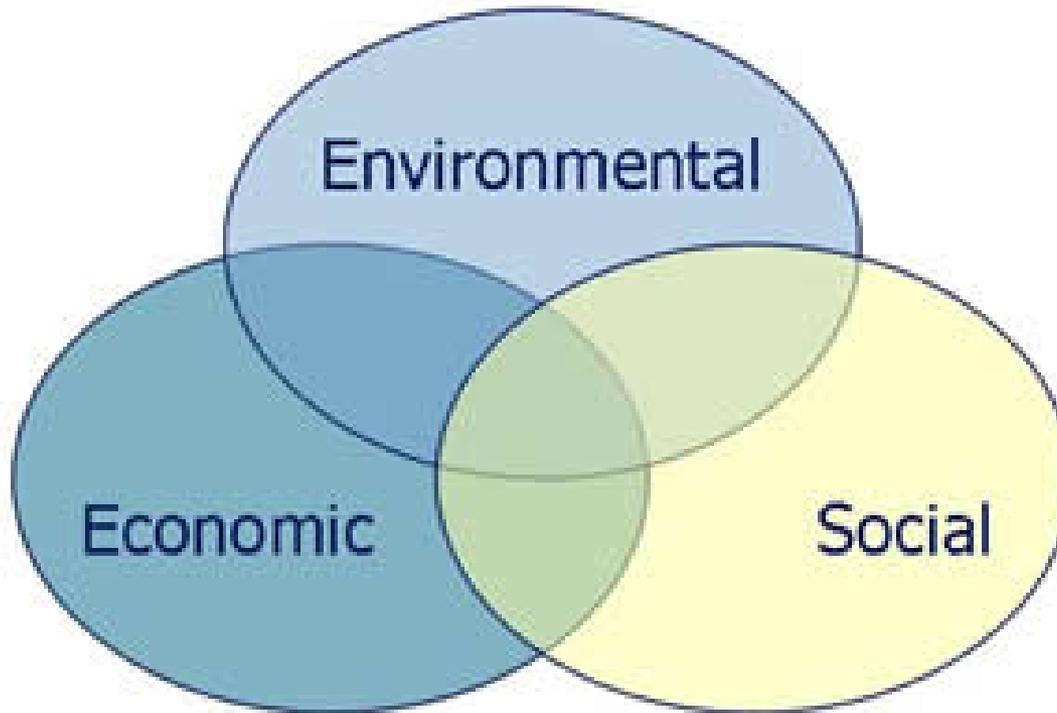
PETE Network over 400 CC's that offer Environmental, Health, Safety & Energy & Green Technology Programs

PETE is an Affiliated Council of the American Association of Community Colleges (AACCC) a network of over 1200 colleges

Where are the U.S. Environmental & Energy Technology Programs?



What's Driving Business & Industry "Triple Bottom Line"



A triple bottom line (TBL) reflects an organization's social, environmental, and economic success.

What Is Sustainability Reporting?

A Sustainability Report presents information about a company's (or organization's) progress toward implementing sustainable business practices.

The report will typically report on progress toward key business objectives:

- Decrease its environmental footprint
- Improve its financial bottom line and operate the organization ethically

What Is Sustainability Reporting? Cont.

- Improve its relationships with stakeholders, including relationships with its employees and the communities in which it operates.

Companies have traditionally demonstrated their financial responsibility through quarterly and annual reports, relegating societal accountabilities to public relations efforts and marketing brochures.

Sustainability Reporting adds social and environmental performance to these accomplishments. "This marks a major milestone in corporate accountability."

Green-collar worker

From Wikipedia

- A **green-collar worker** is a worker who is employed in the environmental sectors of the economy, or in the agricultural sector.
- Environmental green-collar workers satisfy the demand for green development.
- Generally, they implement environmentally conscious design, policy, and technology to improve conservation and sustainability.

Green-collar worker, cont.

From Wikipedia

- Formal Env. Regs. as well as informal social expectations are pushing many firms to seek professionals with expertise with environmental, energy efficiency, and clean renewable energy issues.
- They often seek to make their output more sustainable, and thus more favorable to public opinion, governmental regulation, and the Earth's ecology.

Green-collar worker, cont.

From Wikipedia

- **Green collar workers include professionals such as:**
- conservation movement workers
- environmental consultants/technicians
- environmental or biological systems engineers/technicians
- green building architects
- holistic passive solar building designers

Green-collar worker, cont.

From Wikipedia

- ecology educators
- ecotechnology workers
- They also include trade-level employment:
- electricians who install solar panels
- plumbers who install solar water heaters
- construction workers who build energy-efficient green buildings

Green-collar worker, cont.

From Wikipedia

- solar energy engineers/technicians
- wind energy engineers/technicians
- nuclear engineers/technicians
- green vehicle engineers/technicians
- organic farmers
- environmental lawyers
- landscapers
- medical technicians

Community Colleges

- Have Programs that Cover most of the Green Collar Jobs
- Train 80% of the Nation's First Responders
- Most People have access to a CC within 50 miles of their home!
- Serve the local community business and industry workforce needs



Earth Day 1970



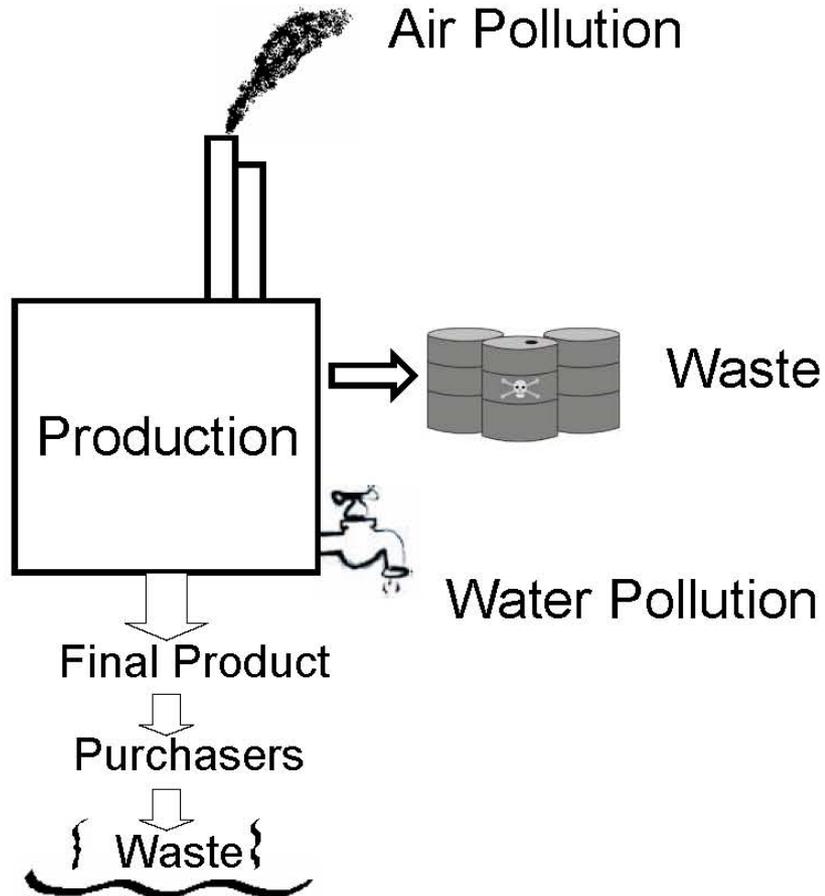
STAGE I

“Industrial”

Pre-1970

“Take-Make-Waste”

Inputs →
-Extractive
-Man-Made
-Toxic



Characteristics:

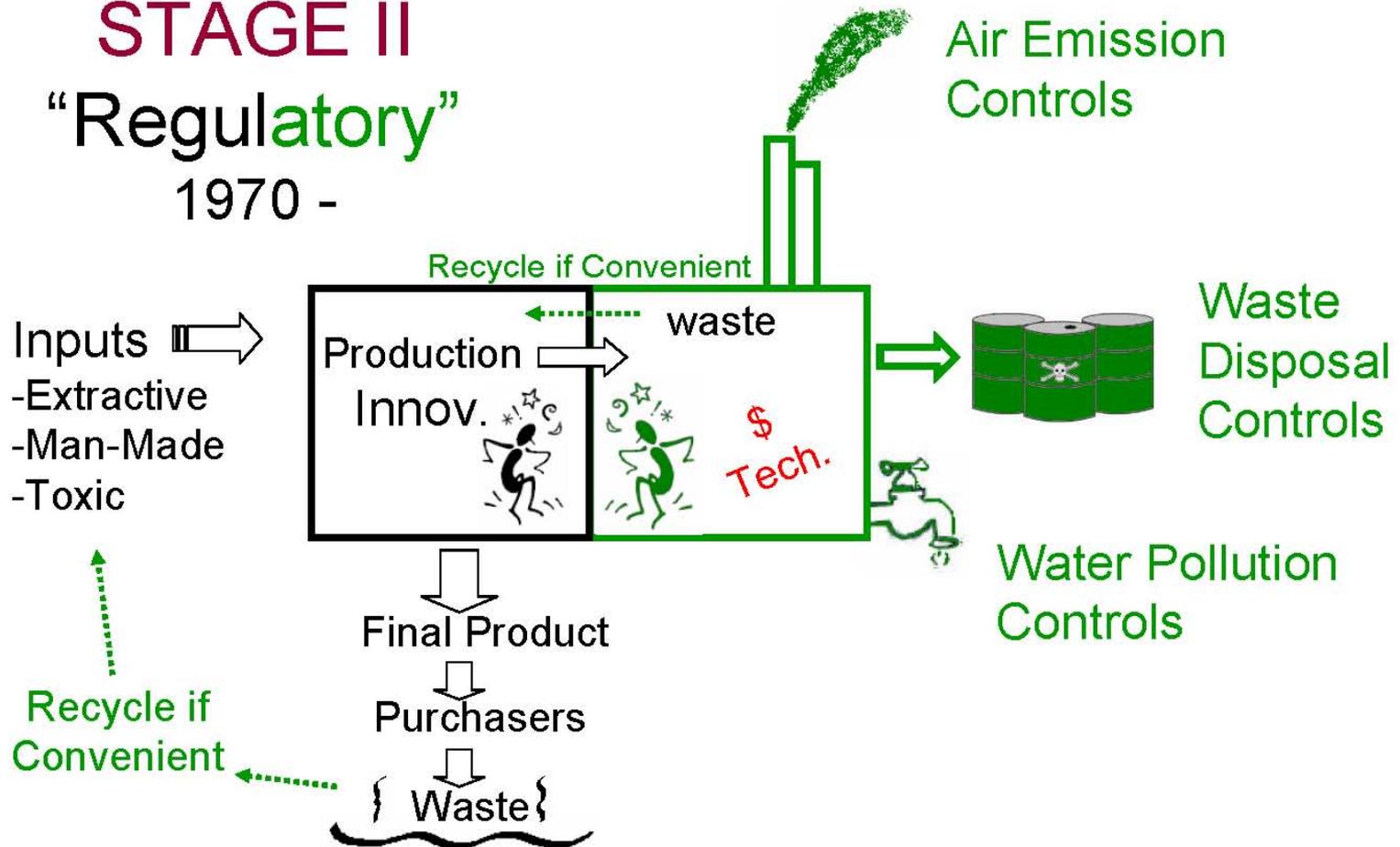
$$I = P \times A \times T$$

Environmental Costs
externalized

STAGE II

“Regulatory”

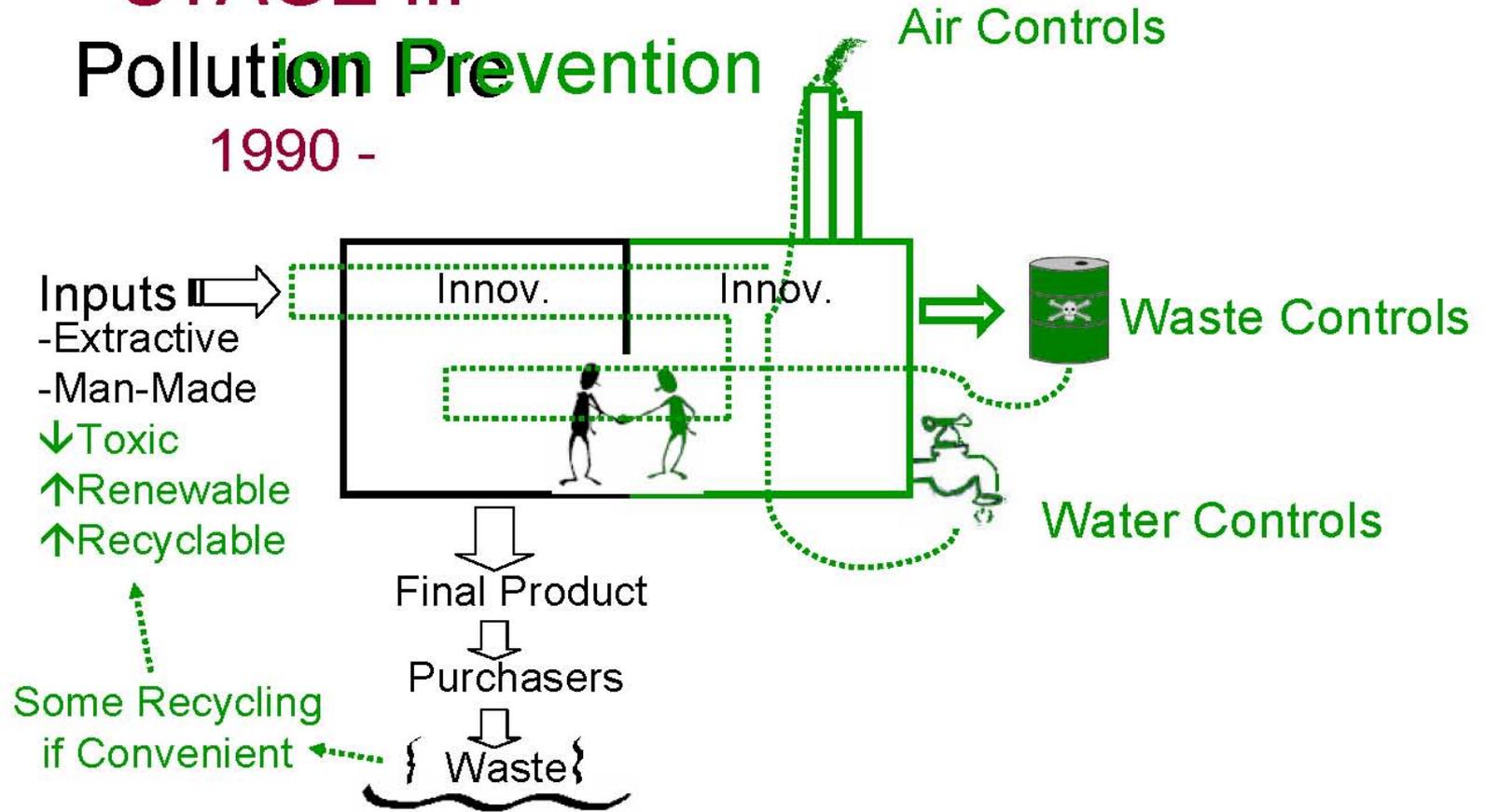
1970 -



STAGE III

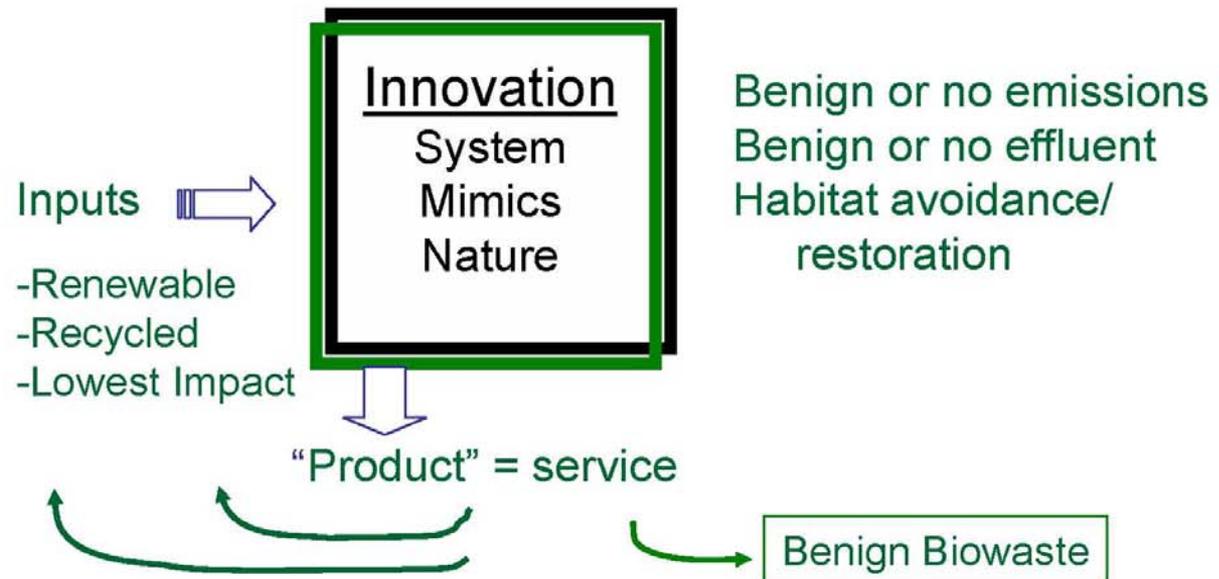
Pollution Prevention

1990 -

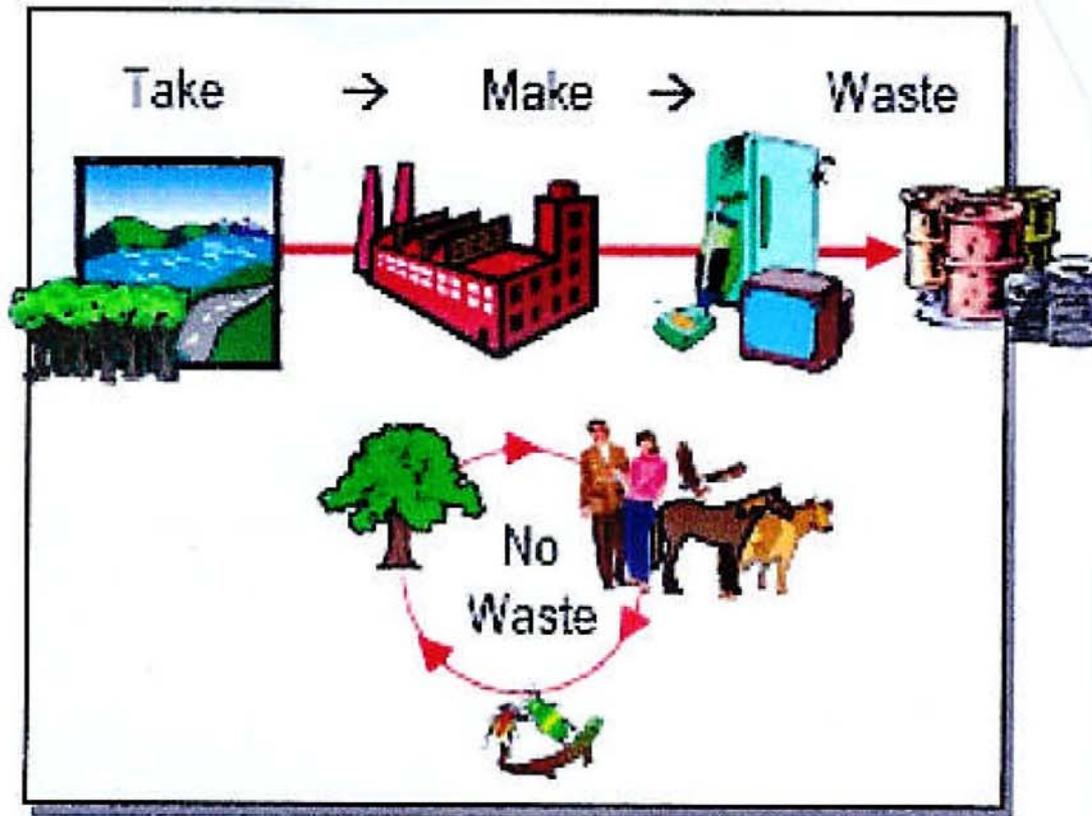


STAGE IV

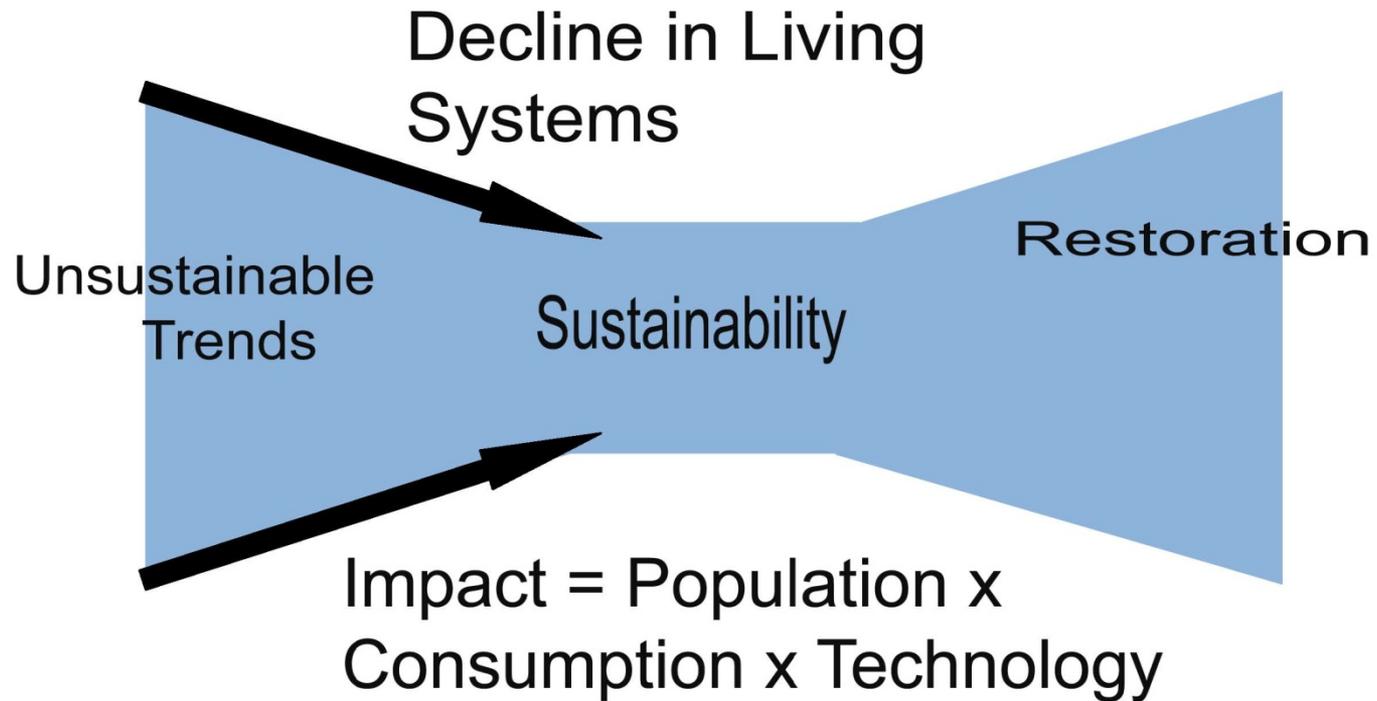
Integrated Production Systems Using Nature as Model



Industrial v. Natural Systems



The Big Picture



Global Warming





**EVEREST PEAK
WATERFRONT
CONDOS**

FULLY SERVICED LOTS

FOR SALE

**METCO
REALTY 857-8585**

TURN RIGHT AT PEAK



Visit Our Display Home



What re-
started the
general
U.S. populous
“thinking
green again”

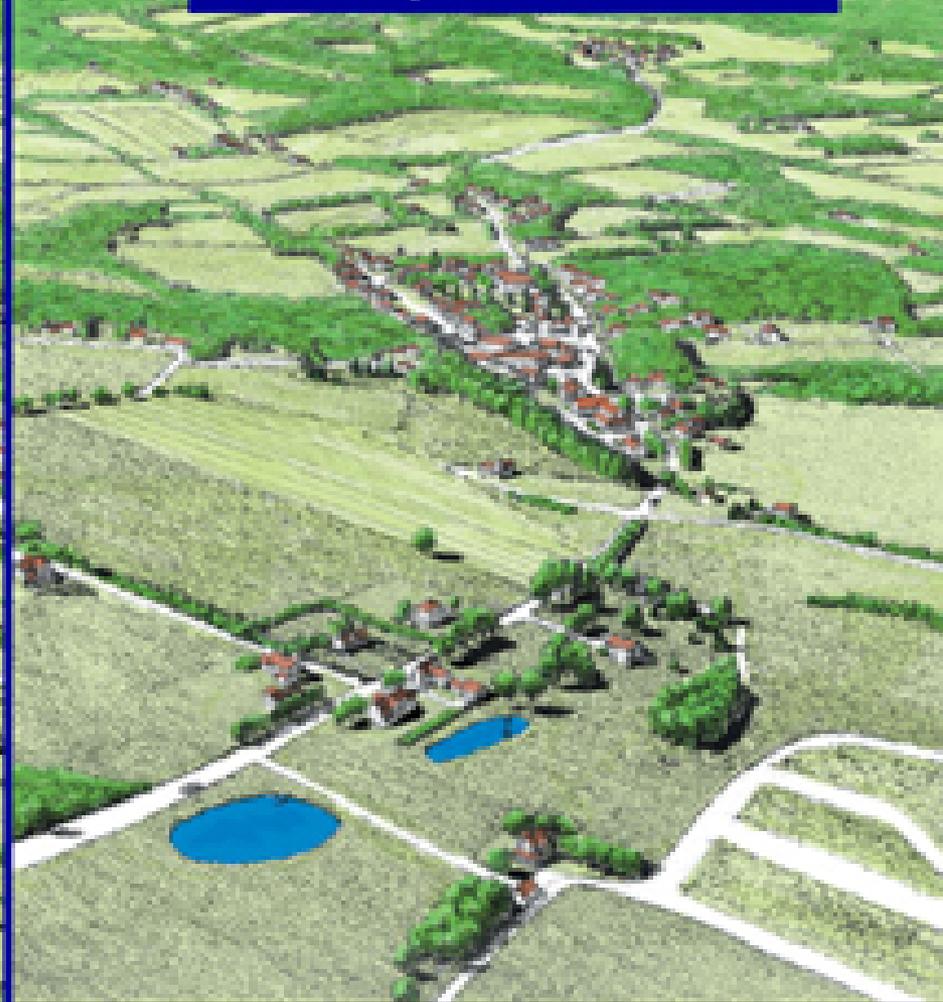




**Low-density
Development Pattern**



**Smart Growth
Development Pattern**



Two alternatives for future growth at a regional scale. The same number of people are accommodated in both scenarios.

LID Guiding Principals

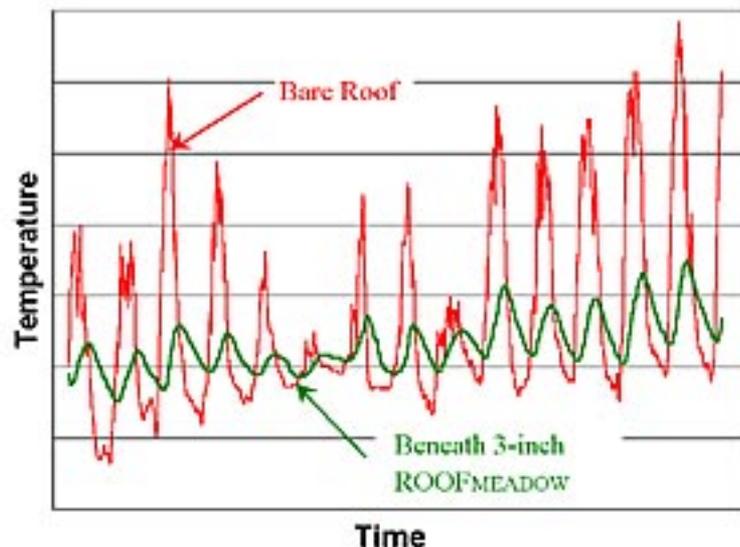
- u Minimize Disturbed Area
- u Reduce Impervious Areas
- u Divide and Conquer Stormwater
- u Infiltrate Where Possible
- u Use New Technology
- u Maximize Natural Buffers
- u Open Space requirements



Fencing Academy of Philadelphia

The roof cover is only 3.4" thick, including the drain layer

Weight is 5 lb/sf dry,
17 lb/sf saturated



Variation in temperature:
bare roof ranges up to 90° F
under vegetative cover 18° F



Zero Net Housing



Role of Community Colleges

- Incorporate “Triple Bottom Line” philosophy across the entire academic platform.
- Verify changing skills needed to work in the “Green Economy”
- CC’s becoming Green Campuses – “Practice what we Preach”

PETE & AACCC are working strategy for a national CC endorsement!

PETE Activities

- Energy Efficiency & Renewable Energy Curriculum Development & Instructor Training
 - Energy Efficiency & Renewable Energy Workforce Development Conf, 11/18-20/09, NY
(Joint with IREC for NYSERDA)
- DACUM's – with Business & Industry
- Promoting CC's Become a Green Campus

PETE Activities, cont.

- Two Instructor Conferences per year
 - March 19-20, 2009, “Are You Preparing Your Programs for the Green Economy”, Blue Ridge CC, Flat Rock, NC
 - August 2009, Edmonds CC, Lynwood, WA
- Conferences held Jointly with Kirkwood CC’s CCCHST Refresher Workshops

PETE Activities, cont.

- “New York City – Youth-in-the-Environment Initiative”
 - Summer Youth Education & Training

- Two New Projects
 - 2008 OSHA Susan Harwood Grant – “Shipbreaking Safety & Health Hazards”
 - 2008 DHS-FEMA Grant- “The Community College Citizen Preparedness Program (3CP2)”

ATEEC

PETE's Partner the
Advanced Technology
Environmental and
Energy Center (ATEEC)
An NSF ATE Center

www.ateec.org



FREE DOWNLOAD

National Forum on Defining the Field

What is the Energy Technologies and Services field?

Energy Technologies and Services is a career field that applies the principles of science, engineering, communication, economics, management, and law to optimize the sustainable production, delivery, and use of energy resources.



DEFINING Energy Technology & Services

What is a technician?

A technician applies knowledge, skills, and abilities to perform scientific, technical, communication, and regulatory tasks.

OCCUPATIONAL CATEGORIES

OCCUPATIONAL TITLES



*Indicates an emerging occupational field, existing but not yet fully defined
Note: See reverse for additional information.

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