

Considering a Comprehensive Ecosystem Services Framework - Across the Wildland to Urban Interface

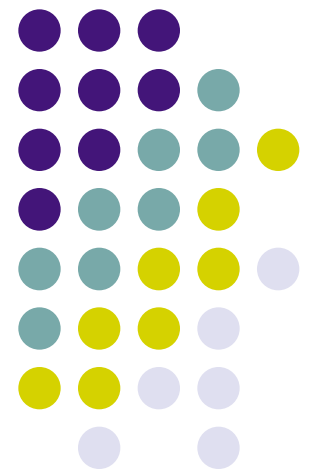
Dr. Kathleen Wolf

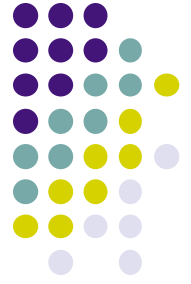
University of Washington, College of the Environment

USDA Forest Service, Pacific NW Research Station

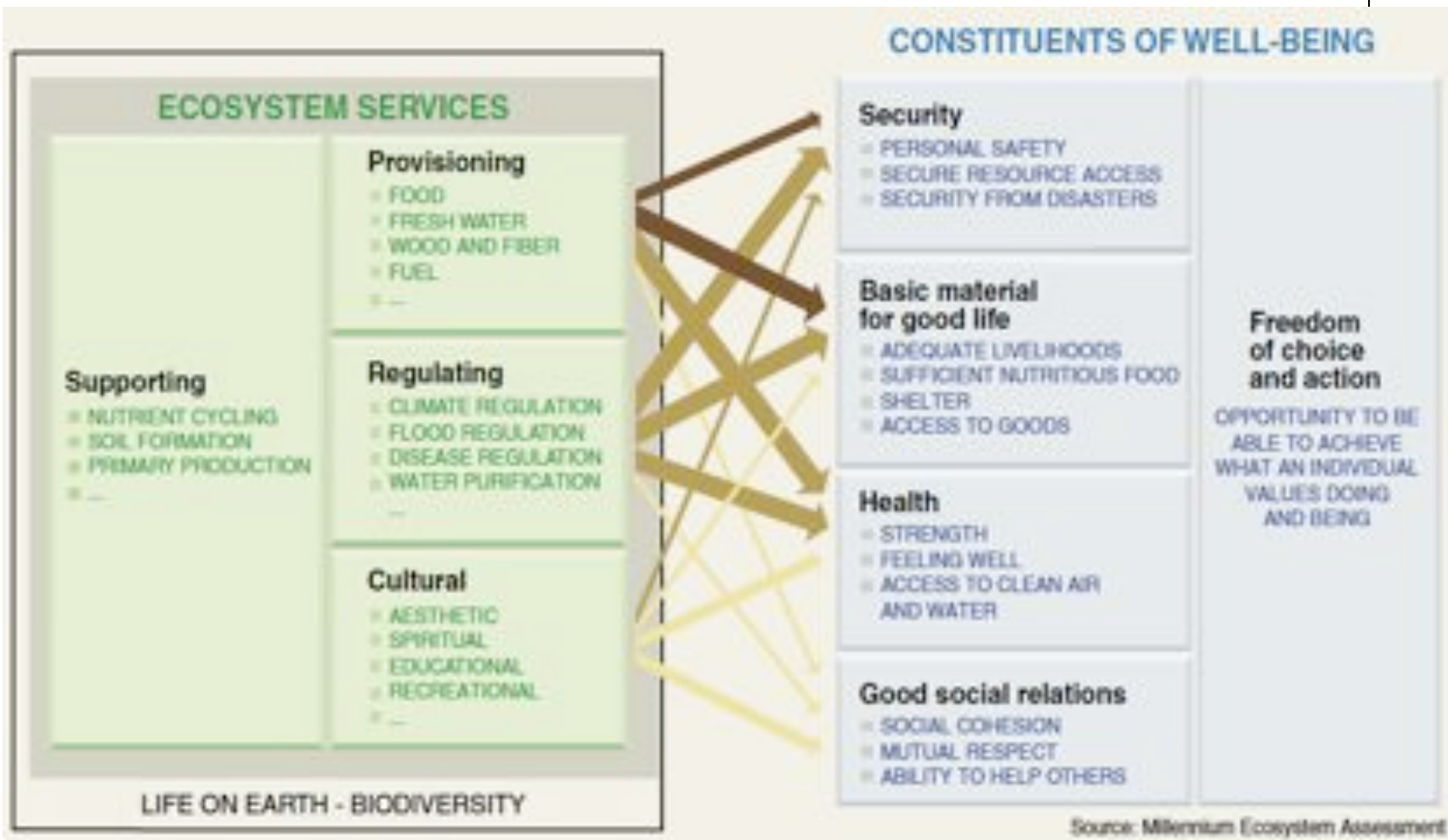
Emerging Issues Along the Urban-Rural Interfaces³

Atlanta :: April 2010



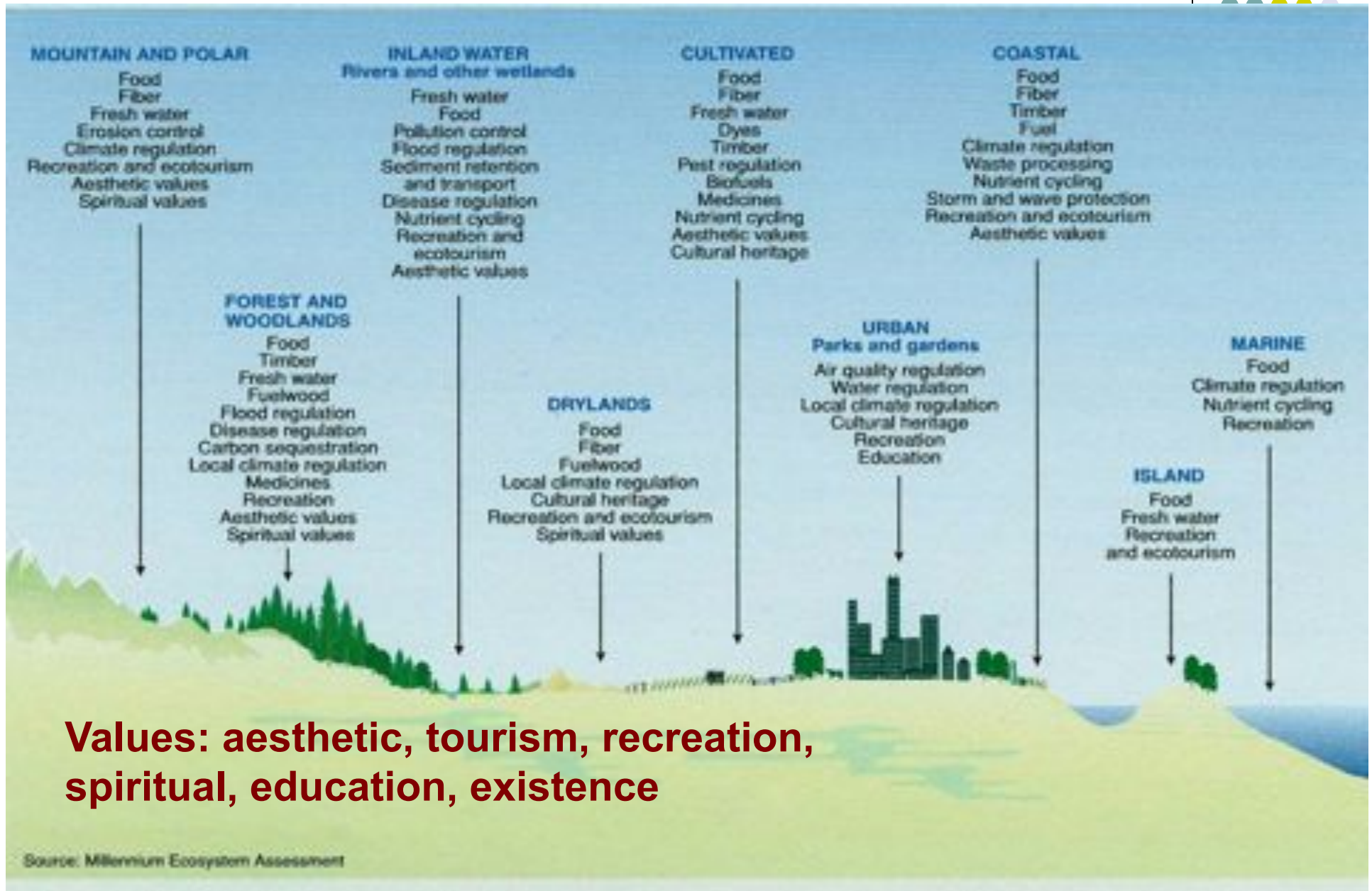


Ecosystem Services Classifications



Millennium Ecosystem Assessment :: 2005

Socio-Cultural Ecosystem Services



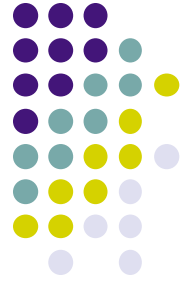


City Green

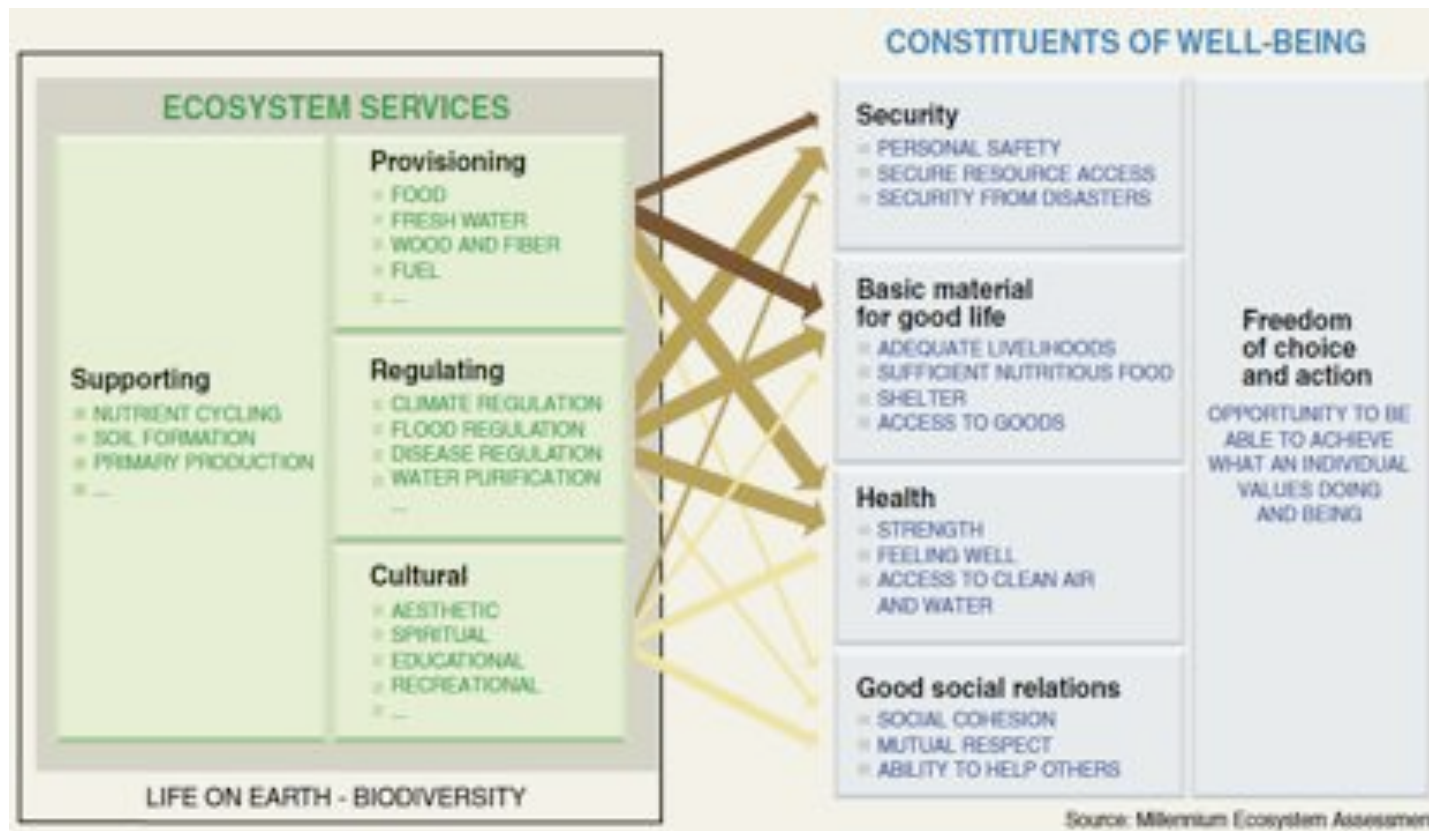
Ecosystem Services

Human Health & Well Being

- restorative environments,
cognition & mental function
- stress & anxiety reduction
- children & learning, ADHD therapy
- vegetation & crime reduction
- worker productivity
- community cohesion
- community resilience

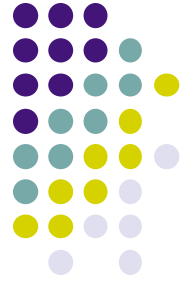


Ecosystem Services Classifications



Goal: expand the conceptual & scientific framework

Finding that study



difficult for professionals & scientists!

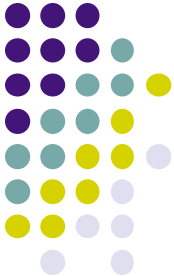


Research Reviews



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USDA Forest Service,
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Research Reviews



Urban Forestry/Urban Greening Research

Nature in the City

UFRS UNIVERSITY OF WASHINGTON

SHARED PRODUCTS COLLABORATORS FUTURE RESEARCH REFERENCES LIST

Metropolitan nature — including trees, parks, gardens, and open space — adds beauty to built places. The experience of nature in cities is profoundly important for many other reasons. Scientific studies tell us why. These pages describe the research...



Urban Livability

Across the ages many people have noted that the experience of nature is an important factor in creating places that are livable and, supportive for humans. Life satisfaction and a positive outlook are the products of encounters with nature and greenery in cities. [READ ABOUT THE RESEARCH](#)

RESEARCH THEMES

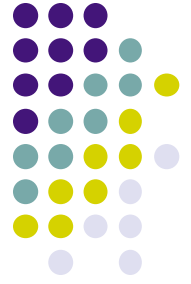
- Urban Livability
- Place Meaning and Attachment
- Community Capital
- Local Economics
- Social Ties
- Safety and Crime
- Reduced Risk
- Physiology & Health
- Physical Activity & Health
- Healing and Therapy
- Mental Health and Functioning
- Education and Learning
- Lifecycle & Special Populations
- Land Uses

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first
release
May 2010

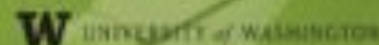
Evidence Based Framework

- Livable Cities (perception, amenity)
- Place Attachment & Meaning (emotion, connection)
- Social Ties & Community Building
- Crime & Fear
- Community Economics
- Reduced Health Risk
- Physiology & Wellness
- Active Living
- Mental Health & Cognitive Function
- Education & Learning
- Lifecycle & Equity
- Safe Street Systems
- Land Use Benefits





Green Cities: Good Health



INTRODUCTION*

SHARED PRODUCTS*

FUTURE RESEARCH

REFERENCE LIST

livable Cities

Place Attachment & Meaning

Community Building

Local Economics*

Social Ties

Crime & Fear*

Reduced Risk

Physiology & Wellness

Physical Activity*

Healing & Therapy

Mental Health & Functioning

Education & Learning

Lifecycle & Special Populations

Safe Streets*

Crime & Fear

There are two conflicting outlooks towards city trees and vegetation. On one hand landscape is believed to promote healing and renewal, while the second outlook implicates vegetation as a cause of crime. This article addresses the second perspective, and summarizes the research findings on the relationship between urban nature and safety, aggressive behavior, and crime. The science findings are not conclusive, and may even appear inconsistent or conflicting, yet certain patterns or relationships are seen across many studies.

Highlights

- Lorem ipsum dolor sit amet, consectetur adipiscing elit.
- Nullam vel dui. Aliquam erat volutpat. Nam lectus.
- Vestibulum dignissim tempor lectus.
- Duis placerat pellentesque mauris. Curabitur risus nisi, feugiat vitae, sagittis mollis, ultrices vitae, dui. Vivamus dapibus pede id erat.

cite: Wolf, K.L. 2009. *Crime and Fear - A Literature Review*. In: *Green Cities: Good Health (web link)*. College of the Environment, University of Washington.



test caption looks like this-a-here



Crime & Fear: facts

- 2007: 11.25 M crimes; 12.5% violent, 87.4% property crimes
- CA, minor crimes: incidence of vandalism 90% on surfaces without plantings, 10% for places with plants
- Chicago, self-reports of year and life, reductions in aggression & violence of >25%
- Chicago, reported crimes, buildings with high vegetation level – 52% fewer total crimes (48% property, 56% violent)
- Tallahassee, vegetation measured from satellite, more residential vegetation, less crime
- Community self-policing dynamics



Why is This Important?



GREEN METROPOLIS

What the City Can Teach the Country
About True Sustainability

DAVID OWEN

“in wildness is the
preservation of the world” . . .

in urban is the
preservation of the
wild and rural



Project done then what?

- Research gap analysis ::
focus research efforts & funding
- Expand studies :: correlations to causal
- Create messages & products to engage
addtn'l audience & stakeholder groups
- Benefits :: spatial distribution ::
economics
“ i-Tree Community ”





Tools for assessing and managing Community Forests



[About i-Tree >>](#)



Assessing Urban Ecosystems

Find out how to assess all the trees in your community.

[click here to begin](#)



Assessing Street Tree Populations

Learn how to assess just the street trees in your community.

[click here to begin](#)



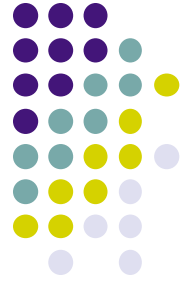
Applications and Utilities

Access tools available for your tree management.

[click here to begin](#)

The i-Tree Tools help quantify the structure, function and value of tree populations. They provide a scientific process for data collection, analysis and quantification of the benefits.

[Find out more >>](#)



Conclusions

- urban nature & human health & well-being: importance evidence, 40 years of science
- underway: resource web site
- from evidence to application
i-Tree Community
- understand & implement a fully comprehensive framework of ecosystem services

College of the Environment University of Washington

Human Dimensions of Urban Forestry and Urban Greening

featuring research on peoples' perceptions and behaviors regarding nature in cities

What's New?

- Nature and Consumer Environments**
Research about how the urban forest influences business district visitors.
- Trees and Transportation**
Studies on the value of having quality landscapes in urban roadsides.
- Civic Ecology**
Studies of human behaviors and benefits when people are active in the environment.
- Policy and Planning**
Integrating urban greening science with community change.
- Urban Forestry and Human Benefits**
More resources, studies and links . . .

Projects Director
Kathleen L. Wolf, Ph.D.

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