

Upstate Forever

Economic Prosperity and Environmental Protection



We Can Have It Both Ways

Upstate Forever

is a nonprofit membership-based organization
that promotes sensible growth and protects special places
in the Upstate region of South Carolina
through three basic programs:

Land Trust – Protecting the Upstate’s important lands and resources

Sustainable Communities – Promoting economically, socially
and environmentally sound growth in the Upstate

Clean Air and Water – Protecting and improving the Upstate’s
air and water

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Cover photo center: Mountain Bridge Wilderness Area in northern Greenville County courtesy Tommy Wyche;
right: QS/1’s LEED-certified headquarters in Spartanburg, SC

Land Use Regulations Mean Increased Profits

“We work in markets throughout the United States and are more profitable in communities that have zoning and strong development standards. The reason is that regulations create high quality places that attract businesses, workers and consumers. We also find a strong correlation between regulations and higher per capita income.”



George Dean Johnson, Jr.
Chairman, Johnson Development Associates, Inc.
Founder, Extended Stay America, Inc.
Member, South Carolina Business Hall of Fame
Former President, South Carolina Chamber of Commerce

Green Buildings Mean More Productive Workers and Students

• **6-16%**

**Increase in productivity
of employees** who work in green
buildings

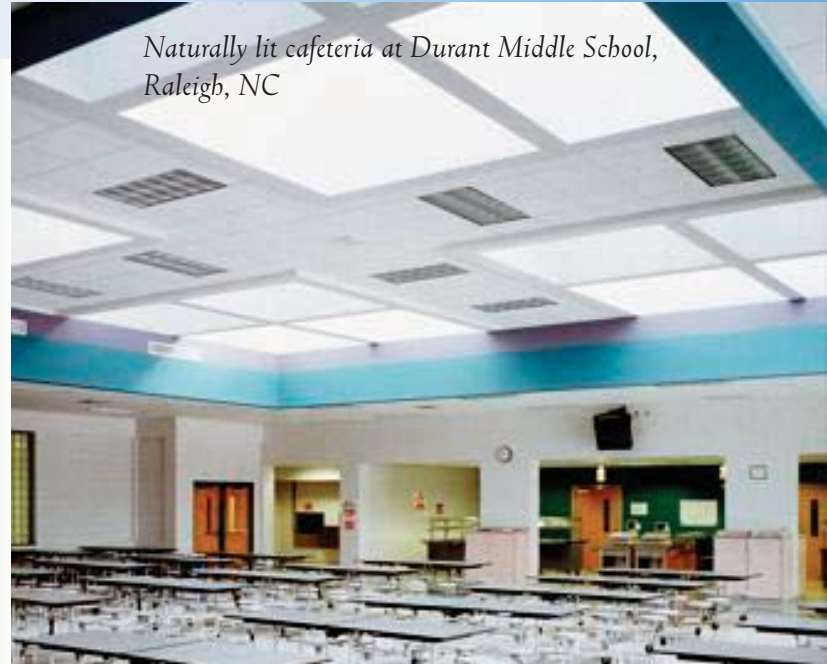
(Hawken, Lovins and Lovins, *Natural Capitalism*, 1999, p. 89)

• **26%**

**Better performance on
reading tests by students**
in classrooms with natural daylighting
versus students with little or no natural
daylighting

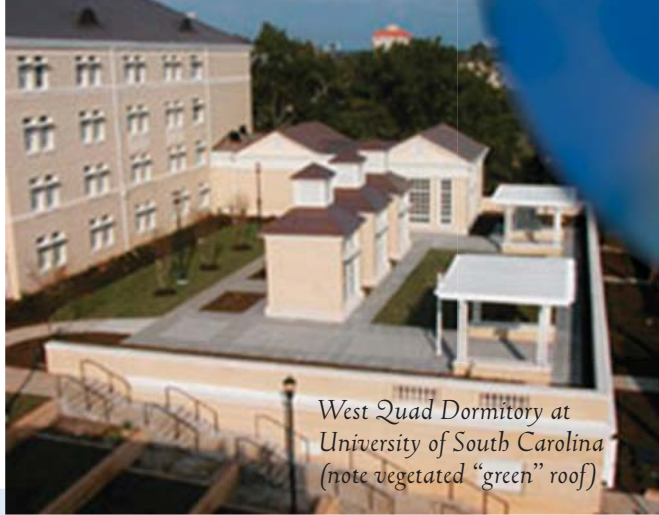
(Heschong, "Daylighting and Human Performance," *ASHRAE
Journal*, June 2002)

*Naturally lit cafeteria at Durant Middle School,
Raleigh, NC*



• **10 times**
Payback on investment
in green features
over 20 years

(Tibbetts, "Building Green:
A New Path," *Coastal Heritage*,
Winter 2005-6, p. 10)



*West Quad Dormitory at
University of South Carolina
(note vegetated "green" roof)*

**Green Buildings
Reduce Operating
and Energy
Costs**

• **\$69,440**
**Annual savings in
energy costs** at QS/1's
green corporate headquarters
in Spartanburg as compared
to the costs of a conventional
building of the same size

(Wade Crow Engineering, 2008)

• **\$2 per sq. foot**
**Planning, design, and
construction cost
savings** of the University of
South Carolina's new LEED-certified
West Quad dormitory as compared
to the cost of a conventional
dormitory complex

(Tibbetts, p. 6)

• **\$1.2 million**
**Annual savings in
energy costs** at Adobe
Systems Inc.'s retrofitted
green headquarters in San
Jose, CA – a 121% return on
investment

(Egan, "New Programs Energize Green
Retrofits for Buildings," *National Real Estate
Investor*, June 18, 2007)

Reuse and Recycling Boost the Economy

• **\$236 billion**

Annual sales in the U.S. recycling industry

(*Id*)

• **50%**

Reduction in number of garbage pick-ups in Mesa, AZ as the result of curbside recycling

(U.S. EPA, *Puzzled About Recycling's Value?*, 1998, pp. 4-5)

• **\$37 billion**

Annual payroll in recycling and reuse industry

(R.W. Beck, *U.S. Recycling Information Study*, National Recycling Coalition, July 2001, p. ES-2)



• **\$1 million**

Annual savings by using methane gas from the Palmetto Landfill in Spartanburg, SC as source of energy for BMW's Greer plant

(*The Greenville News*, May 6, 2006, p. 13A)

• **\$15 billion**

Difference in infrastructure costs (roads, water, sewer and utilities) between “sprawl scenario” for accommodating the next 1 million people in the Salt Lake region and the well-planned scenario for the same number of people

(Calthorpe and Fulton, *The Regional City*, 2001, pp. 130-133)



**Good Planning
Reduces Service and
Infrastructure Costs –
Macro Level**

• **\$34,500**

Savings in infrastructure and service costs per house from well-planned development versus low density, non-contiguous development
(Benfield *et al.*, p. 98)

• **\$1.1 billion**

Annual savings in service and infrastructure costs realized by planning for growth in an 11-county region in California

(Benfield, Raimi and Chen, *Once There Were Greenfields*, 1999, p. 102)

• **40-60%**

Savings in infrastructure costs from directing growth to areas where infrastructure already exists and modestly increasing density

(*Id.*, p. 115)

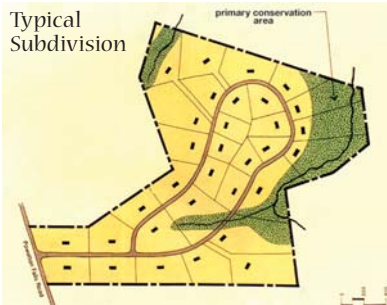
Good Planning Reduces Service and Infrastructure Costs – Micro Level

• **50%**

Reduction in infrastructure costs using conservation design (clustered homes with ample green space) for a new subdivision in Charleston, SC

(Charleston Harbor Project, *The Belle Hall Plantation Charrette*, 1994, p. 11)

Typical
Subdivision



Conservation
Subdivision



from Randall J. Arendt, *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*, 1996

• **\$8,500**

Additional cost of infrastructure per lot for conventional design versus conservation design

(Rocky Mountain Institute, *Green Development*, 1998, p. 89)

• **\$17,100**

Increased value of a home in a conservation subdivision over a comparable home in a conventional development after twenty years

(*Id.*, p. 88)

Protecting Watersheds Reduces Treatment Costs for Drinking Water

• **\$250,000**

Annual water treatment cost savings realized in Gastonia, NC after switching its water supply to a reservoir in a watershed protected from development

(Trust for Public Land, *Safeguarding a Pristine Reservoir*, 1999)

• **\$1.5 billion**

Estimated cost of protecting critical lands in the watersheds of New York's water supply reservoirs

(Stapleton, *Protecting the Source: How Land Conservation Safeguards Drinking Water*, Trust for Public Land, 1997)



• **\$6-8 billion**

Estimated cost of building a filtration plant for New York City's water supply if the watershed were developed instead of protected

(*Id.*)

Protecting Trees Creates Savings for Air and Water Quality Programs

• **\$419 million**

**Annual value of Portland, OR
tree cover** in removing air pollutants

(American Forests, *Regional Ecosystem Analysis for the Willamette/Lower Columbia Region of Northwestern Oregon and Southwestern Washington State: Calculating the Value of Nature*, October 2001, p. 6)

• **\$1.9 billion**

**Annual value of Mecklenburg County's
tree cover** in reducing stormwater runoff

(Nash, "Dollars in the Dirt," *Region Focus*, Federal Reserve Bank of Richmond, Winter 2004)

• **\$31,250**

**Soil-erosion related costs prevented by
one tree** over a 50-year period

(U.S. Department of Agriculture, Forest Service Pamphlet #RI-92-100, cited in *Benefits of Trees in Urban Areas*, Colorado Tree Coalition)



"[Clean energy technology] is the largest economic opportunity of the 21st century."

John Doerr, Kleiner, Perkins, Caufield & Byers venture capital firm, *The Wall Street Journal*, March 24, 2008



What Others Are Saying

"Green for the environment and for your bottom line. Energy expenses make up 25 to 35 percent of our controllable operating costs."

George Caraghiaur, Simon Property Group (one of the nation's largest owners of shopping malls), *The New York Times*, April 29, 2007

"Over the last year and a half or so [with energy-smart products] we've saved 20 million tons of carbon emissions. We've also saved our customers \$2.1 billion."

Michael Dell, CEO, Dell Inc., IT Energy Efficiency Summit, February 6, 2008



**“Operating in a sustainable,
environmentally sensitive
manner is the right thing to do –
it’s also good business.”**

Randy Knox

Adobe Systems Inc.

“Greening Your Triple Bottom Line,” *The Morrow Report*

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