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Author name(s):
1. Kendra J. Briechle
2. William L. Allen III
3. 

Contact information for primary author:
Organization (if applicable): The Conservation Fund
Address: 1655 North Fort Myer Drive, Suite 1300, Arlington, VA 22209
Telephone: 703-525-6300
Email: kbrauchle@conservationfund.org

Paper Abstract (250 words):
The paper outlines a vision for communities to more strongly embrace smart locational decisions, form, and development paired with a deeper consideration of the environment at all scales. The authors call this pursuit of growth that is "all the way" smart and "all the way" green.

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What’s Your Vision for the Future of Your Community?
Smart Growth National Conversation on the Future of Our Communities

All the Way Green and Smart By Kendra Briechle & Will Allen

A few years ago, one of the authors had the privilege of serving on the Smart Growth Awards Panel. That year, during the review of some tremendous projects, the panel struggled with the inclusion of green building as a prominent feature in several applications. The panel’s debate revolved around the smart growth principles: green building wasn’t explicitly part of the criteria so some on the panel supported projects that had excellent green building features combined with good smart growth aspects while others advocated for hewing to projects that featured the best smart growth elements as defined by the principles while viewing green building as a bonus feature to distinguish similar entrants.

In the end, however, the best outcome is one that is both smart and green in all facets. Our development should be built smart in locations with appropriate scale and pattern that enable choices in housing and transportation and built green—protecting and restoring interconnected networks of green infrastructure and their ecological functions, using or retrofitting existing infrastructure—including historic buildings—when possible, installing green and complete streets, and constructing green buildings. Our vision for future communities is one that embraces the continuum and calls for communities that go all the way green and all the way smart.

Why all the way smart and green? Certainly we’ve heard moans directed toward a brand-new office building hyping cutting-edge green building features, yet located like an island along the interstate and surrounded by a sea of parking for the cars required to reach the site. Many also lament the monthly shelter magazine that touts a new 5,000-square foot house with every green feature, while ignoring the home’s isolation from services and its perch on previously undeveloped land. Instead we need to recognize more comprehensive and stronger outcomes: to truly be green, development needs to be smart in location, pattern, and form and to truly be smart, growth needs to be green in location, pattern and form.

Smart and green is not about altruistic or aesthetic motives (although some developments could stand a little improvement in those areas!); rather, it is in response to market demands, shifting trends, and the opportunity for long-term multiple and mutual benefits: to the environment, the economy, and community.

Real estate expert Ed McMahon noted in the January issue of Urban Land, “In the future, it seems certain that the market will ultimately favor the greenest buildings in the greenest locations in the greenest cities”. If we believe in the words of an early business supporter of smart growth, former chairman of Bank of America Hugh McColl, Jr., that “smart growth is pro-growth” with “the goal... not to limit growth but to channel it to areas where infrastructure allows growth to be sustained over the long term,” then we need to think first about the framework for sustaining places. Our foundation is the places and the connections needed to provide essential ecological services for human life. Those interconnected networks of natural
lands, working landscapes, and other open spaces are our green infrastructure and that can ultimately shape and complement the built infrastructure.

Think of it this way: when everything’s open for development, every proposed development is open for a fight. Instead, by first defining the ecological and working landscapes and the links that are fundamental to their functions, we can then more strategically and efficiently identify locations for development and avoid having to recreate or restore expensive ecological functions. As we assess development, we look for the places with existing human infrastructure investments and enhance place-based decision making by connecting the green and grey infrastructure to ensure they complement one another.

Use of green materials and restoration of ecological functions during construction combines with locational decisions maximizing existing investments of infrastructure to complement the underlying foundation of green infrastructure. Development then takes shape using the principles of smart growth along with continued consideration of the best outcomes for protecting ecological functions and safer, healthier thriving communities for all of us.

Why do this? Well, consider these trends:

- There is a growing market demand for walkable, urban places according to a report from the Brookings Institution about Washington, DC and analysis in places like Columbus, OH, and Denver, CO (Leinberger and Alfonzo, 2012; New York Times. May 25, 2012).

- More young people are disinterested in driving or the traditional rite of buying a car (New York Times. March 22, 2012.) In 2008, 46.3 percent of potential drivers 19 years old and younger had drivers’ licenses, compared with 64.4 percent in 1998, according to the Federal Highway Administration, and drivers ages 21 to 30 drove 12 percent fewer miles in 2009 than they did in 1995.

- Increasing urban densities are at least partially responsible for the 3% decline in vehicle miles traveled over the last decade. (State Smart Transportation Initiative, 2012)

- The infrastructure shortfall means governments at all levels need to be more strategic about investments in infrastructure. The American Society of Civil Engineers suggests that the nation has a $1.7B deficit in infrastructure spending. There is a $461B backlog in road/highway maintenance, and 26% of bridges are structurally deficient or obsolete.

- Green infrastructure, nature’s life-support system, is a critical complement to grey infrastructure that can often save money. New York City calculated that spending $600 million in protection of the Catskills watershed was significantly cheaper than building new water treatment facilities estimated at $6 B.

- Over the past ten years, Milwaukee’s GreenseamSTM program has protected 2,100 acres valued at $22 million that holds an estimated 1.3 billion gallons of water in an effort to avoid spending hundreds of millions of dollars of gray infrastructure for flood mitigation.

Kaid Benfield, long-time smart growth advocate, pushes that: “Smart growth shouldn’t be considered smart if it doesn’t include green buildings and green infrastructure, if it doesn’t
show respect to our historic buildings and local culture, if it doesn’t foster public health, if it isn’t equitable.”

**Several efforts are making progress** but the smart growth movement needs to evolve and to push towards the greatest sustainability reflective of great conservation and great development outcomes—with an eye toward the outcome of great places. As examples:

- Smart growth is inherently “green”—the compact form and mix of land uses encourages walkable communities with a mix of housing and transportation opportunities. [NOTE: Data shows a lower carbon footprint results from smart growth.] The smart growth movement must embrace a broader set of principles that integrate materials, the neighborhood, the community and the region into what constitutes smart growth.

- The LEED (Leadership in Energy and Environmental Design) process has set standards for commercial and residential green building. The advent of LEED-ND (Neighborhood Development) is an attempt to bring smart growth contextual decisions into the evaluation of green building yet it doesn’t fully account for the surrounding site and neighborhood, the natural infrastructure and its functionality.

- Green infrastructure serves as the fundamental basis of a community. It enables nature to provide numerous ecosystem services yet green infrastructure needs to be coupled with development decisions and grey infrastructure to ensure the best functionality of human and natural systems. Green infrastructure provides the context for development patterns by defining where growth should take place (and where it should avoid) at multiple scales. Communities need to engage in maintaining, enhancing, and restoring green infrastructure in urban, suburban, and rural settings and at all scales—from landscape level down to site-scale management. (Allen, 2012)

- Upfront protection, restoration, and access to natural resources and their ecological functions means safe, healthier environments for all (equity) and can help save money by supporting the natural functions instead of recreating expensive ecological services.

- In miniature, the “all the way smart and green” notion comes together by combining “Complete Streets” and “Green Streets”. Green streets are a technique of site-scale green infrastructure: a green street uses vegetated facilities to manage stormwater runoff at its source. Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and public transport users of all ages and abilities.

The Chicago metropolitan area is probably the best example of implementing the concept of all the way smart and green. Chicago Wilderness is a broad-based regional alliance with 262 members working together to restore local nature and improve the quality of life for all living things, by protecting the lands and waters on which their metropolitan area depends. The Chicago Wilderness Green Infrastructure Vision (GIV) was originally published in 2004 and is now undergoing a 2012 update that will support implementing smart and green at four scales:
• Regional: by working with regional planning agencies to redefine how sustainability and human health are defined by incorporating conservation development principles and natural resource protection into land-use and transportation plans and contribute to the livable communities initiatives

• Community: by incorporating principles of biodiversity conservation, sustainability, and eco-friendly design into land-use plans, zoning, and ordinances

• Neighborhood: by promoting the preservation of natural spaces, conservation design, and access to nature in developing communities and retrofitting green infrastructure into existing neighborhoods

• Site: by promoting native landscaping, the use of rain gardens, rain barrels, and other best management practices, and through the greening of schoolyards, brownfields, and other community open spaces. (Chicago Wilderness, 2012a)

The 2012 GIV classifies and characterizes important resources, defines ecological and human connectivity needs, and provides information to support land use, conservation, and smart growth decision making. Simultaneous to the development of the GIV, the Chicago Metropolitan Agency for Planning (CMAP), representing seven counties in northwestern Illinois, is implementing its GO TO 2040 regional plan integrating smart and green elements, including compact development, walkable and bikable neighborhoods, multimodal transportation, a fix-it-first philosophy, range of housing options, access to green space, links between transportation and land use, energy and water conservation and green infrastructure from site-scale to networks of parks and open space. The plan also outlines an action plan with the roles of various levels of government—federal, state, regional, counties and municipalities, as well as NGOs, developers, and the public.

How can all the way smart and green become a reality across the country?

• At the Federal level, as outlined in Allen, 2012, there is a need is to reconfigure and/or align the legislative process to bundle green infrastructure investments into a more consolidated set of authorization and appropriation bills that provide communities with the resources necessary to go all the way smart and green.

• At the state level, promote the comprehensive integration of transportation planning and green infrastructure planning where growth-shaping roads and transit development avoid and minimize negative environmental impacts across a mix of transportation options and strategically use mitigation to create interconnected systems of working landscapes, wildlife habitat, and drinking water supplies.

• At the metropolitan level, embrace the approach of the emerging Metropolitan Greenspaces Alliance (MGA): “We must think about cities and the human-built environment as not being separate from, but rather interconnected with, the natural environment, and what that implies for people and nature in urban areas” (Chicago Wilderness, 2012b). Hopefully the approach will expand across the country with an ability to tap Federal, state, and local resources to clean air, protect water supplies,
restore nature, conserve biodiversity, find “green” solutions to infrastructure challenges, and engage diverse communities in environmental stewardship.

- At the site level, initiate an integrated approach within the municipal decisionmaking process through development review, zoning, and planning and engage neighborhood, non-profit, and development organizations, and others and provide incentives that encourage smart development and smart conservation.

We need to strive for a more seamless development and conservation design framework that ensures the greatest natural function possible and human settlements with terrific outcomes for quality of life and opportunity for all. That’s possible only when more of us in the smart growth community seek to fill our half-full glass and embrace the vision of maintaining ecosystem services and functions, lessening our ecological footprint and realizing the possibilities for a new era of thriving human communities—and the economic, social, and environmental benefits that accrue from these decisions.

References


