



# Sprawl: A Birds-Eye View

Written by Chester Arnold

During the year-end holiday rush, UConn's Center for Land use Education And Research released the first phase of a study called Connecticut's Changing Landscape. The study uses satellite-based remote sensing technology to compare the surface - known as land cover - of the state in 1985, 1990, 1995 and 2002. For the first time (anywhere, as far as we know), the study allows us to analyze not just these four snapshots in time, but the change that has occurred between them.

The study was two years in the making. The timing, however, has turned out to be fortuitous in light of debates on smart growth and sprawl that have been breaking out across the state, from the Capitol to town hall to the pages of The Courant. We hope this information will help to inform these debates.

Does Connecticut's Changing Landscape present compelling evidence on sprawl in our state? Forgive my bad form in answering a question with a question, but ... can we rephrase the question, please?

The term "sprawl" has no single recognized definition. Development and its impacts can be gauged in many different ways, from the physical to the socioeconomic. In fact, our project website ([www.clear.uconn.edu](http://www.clear.uconn.edu)) devotes an entire section (called What We're Measuring) to comparing our definition of "developed area," which is based on what the satellite can sense as hard or impervious man-made surfaces, to other definitions based on property maps or aerial photos that may be more familiar to local planners and citizens.

These fine points are understandably lost on the man in the street. In my experience, the typical person's view of sprawl is similar to the oft-quoted opinion of Supreme Court Justice Potter Stewart on pornography: "I know it when I see it." The problem with this seemingly common-sense view is that it results in a de facto definition of sprawl that can be summarized as "development where I don't want it." So, the large subdivision going up in the beautiful meadow across the street automatically becomes sprawl. Is it? It very well could be. It could also be a planned, compact development sited and designed to fit in with local character and to minimize impacts on natural resources - the very essence of "smart growth."

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Numbers alone will not get us out of this definitional dilemma. As our own study proves, with a complex issue like land use even the simplest statistics can be brought to bear in many and splendid ways. For instance, our data show that during the 17-year study period, Connecticut gained about 119 square miles of (what we define as) developed land. This is roughly equivalent to the combined areas of Norwalk, Waterford, Avon, Old Saybrook and Lisbon. Ugh, sounds horrifying. But looked at from another angle, those same 119 square miles are about 2.4 percent of the total area of the state. Hmm, sounds innocuous.

Sprawl or no sprawl, perhaps the better question is: Can we do a better job of growing our towns while preserving the natural resources and community character we hold dear? The answer is a resounding “yes!”

If we zoom in on our maps to the town level, we see substantial arrays of colored blobs and squiggly lines that represent malls, subdivisions and other developed areas built over the past 17 years. It is at this scale that we think the ultimate value of our study lies. At this scale, the maps tell a story. And, although we don't know the whole story yet, and although certainly there are many squiggles that are well sited and designed, overall the patterns appear to indicate that we could grow more compactly, consuming less land and conserving more open space.

With any luck, soon we'll be beyond the unsatisfying “appear to indicate” level of knowledge. We have only just begun to mine information from the mountain of data the study has created. The real story will start to emerge as those of us at UConn, and towns working with us (or without us), begin to use the data to analyze how and where they've grown in relation to their natural, cultural and economic resources. To this end, we are laying it all out there via our website. Anyone and everyone can inspect, use and download our information in the form of maps, tables, charts and data. This is not only to disseminate the results as widely as possible, but to recognize that our data can be analyzed and used in many different ways and that we don't have the corner on good ideas.

This is only the first installment of Connecticut's Changing Landscape. During the coming year, we will be using our new land cover data to drive landscape analysis models on urban growth, forest fragmentation and impervious surface coverage. These models will allow us to go beyond quantitative measures (how much have we developed?) to more qualitative analyses (in what way have we developed?) and get us that much closer to assessing the multifaceted effects of our current patterns of development.

Terms like “sprawl” and “smart growth” inevitably evoke sweeping statewide and regional issues of tax policy, mass transportation and infrastructure investments. It is not devaluing by one iota the critical importance of these issues to observe that they are not the only components of smart growth.

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As debate continues on these big-picture issues, the fate of Connecticut's landscape is determined each and every night in the crucible of local land-use meetings, as commission members try to chart a sensible course for their town. These critically important volunteers and the planners, designers, engineers, builders and other professionals who interact with them need all the information and tools that they can get their hands on, along with the training that makes the tools usable. That's why the release of Connecticut's Changing Landscape is the beginning, rather than the end, of our work at UConn.

It's interesting, if not surprising, to note that the first two organizations to request downloading of the data from our website were the Connecticut Homebuilder's Association and Connecticut Chapter of The Nature Conservancy. Like those groups, we invite you to pore over our study results and come to your own conclusions.

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