Making the Land Use/Transportation Connection: Quietly Revolutionizing Land Use in the 21st Century

by Gerald P. McCarthy

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In her article, *The Quiet Revolution Revived: Sustainable Design, Land Use Regulation, and the States*, Sara Bronin argues that after almost four decades since the publication of *The Quiet Revolution in Land Use Control* by Fred Bosselman and David Callies, it is time to revive some predictions about that "quiet revolution."[1] Bronin uses the green building example as the basis for reconsidering the necessity for "extralocal" land use controls and the interplay between state and local land use functions and authority. This is an interesting lens through which to examine a very old question, having at its core the balance of power between the two levels of government as well as the balance between development and conservation. The report by Bosselman and Callies was commissioned by the new President's Council on Environmental Quality and was published in 1971. The report analyzed several innovative state land use laws to learn how some of the most complex land use issues and problems of re-allocating responsibilities between state and local governments were being addressed, especially focusing on those laws designed to deal with problems related to land use issues of regional or state concern.

A proposed federal bill was drafted, for example, that called upon states to identify and control development in areas of critical environmental concern, assure that development of regional benefit is not blocked or unduly restricted by local governments, and control large-scale development and land use in areas impacted by key facilities. Legislation and programs cited and analyzed included the (1) Hawaiian Land Use Law, (2) Vermont Environmental Control Law, (3) San Francisco Bay Conservation and Development Commission, (4) Twin Cities Metropolitan Council, (5) Massachusetts Zoning Appeals Law, (6) Maine Site Location Law, (7) Massachusetts Wetlands Protection Program, (8) Wisconsin Shoreland Protection Program, and (9) New England River Basins Commission. The conceit embedded in the report, its major policy goal, was to assert that some problems—environmental protection and conservation in particular—were too big for local governments to handle correctly and effectively, and that something between the local and state level of regulation needed to be established to do that job. Bronin states that the "quiet revolution" never occurred, and that now it might via the opportunities presented to localities and builders by "green building."[2]

In fact the "quiet revolution," a radical idea when Bosselman, Callies and the Council on Environmental Quality raised it in 1971, has proceeded, mostly under the radar, in communities across the country and in ways not even imagined in the early 1970s. Using the place I know best, the Commonwealth of Virginia, I shall try to illustrate some of the progress over the past few decades.

"The use of land is a fundamental determinant of environmental quality."[3] This was written in the very first report of the Virginia Governor's Council on the Environment. Just as the federal Council did, Virginia's environmental leadership recognized that a new approach to land use control was needed. The idea of a federal law to accomplish it, however, was politely viewed as highly unlikely to happen. Accordingly, work began on a long-term program of land use reforms that continues to this day.

In 1972, Virginia enacted its Wetlands Control law, probably the first time that the state interposed its own standards on local land use decisionmaking in order to protect a vital natural resource. The law established local wetlands boards to carry out state criteria when local permits were sought to alter or destroy wetlands in coastal localities. In 1973, Virginia enacted a Sediment and Erosion Control law that gave localities responsibility for preventing erosion and sedimentation fouling local rivers and streams. The state Division of Planning and Community Affairs attempted to pass a bill to identify and control development in areas of "critical envi-

1. Sara Bronin, *The Quiet Revolution Revived: Sustainable Design, Land Use Regulation, and the States*, 40 ELR (Envt'l L. & Pol'y Ann. Rev.) 10733 (Aug. 2010) (a longer version of this Article was originally published at 93 Minn. L. Rev. 231 (2008)).

2. *See id.*

3. The State of Virginia's Environment, Dec. 1971.

ronmental concern," one of those catch phrases from the Bosselman book, and proposed federal legislation. Not only did the "critical environmental areas" bill meet overwhelming opposition and defeat, but the Division of State Planning and Community Affairs was abolished in the bargain. No one proposed any further legislation resembling the ill-fated federal bill again in Virginia.

By the 1980s, the Chesapeake Bay was beginning to be recognized for the national natural treasure that it is. A multi-state and federal agreement was signed in 1983 that launched what has now become an extensive and expensive program to restore the environmental health of the Bay.[4] Virginia, recognizing that it had to intensify and strengthen the legal connection between the natural connection of land and water, negotiated and passed a landmark law[5] whose goal was, once and for all, to impose an affirmative responsibility on local governments to manage land uses in ways that protected water quality in the Bay region. This law established a state agency to oversee the implementation of the program, which was to be carried out by a new set of local boards in each Bay area locality. The law extended and surpassed the previous authority embedded in the Wetlands law. Later, in the 1990s, the Wetlands law was extended to cover non-tidal wetlands as well.

Meanwhile, some local governments were pressuring the state legislature for more control over their communities' development. Virginia is a Dillon Rule state, so specific authority for land use controls, such as the provision for impact fees on development, must be requested by localities and granted by the state. This is a subject for a paper in its own right as the complexities and politics of such legislation and regulation are myriad.

In recent years there has been more progress to advance the quiet revolution, and it has been accomplished in an unusual, unexpected, and unprecedented way: by use of the state's power to develop its transportation system. Since 2006, Virginia has developed an innovative and much-improved system for coordinating state transportation planning and local land use decisionmaking, and in the process has done more to assert the state's legitimate role in land use planning than almost anything else it has tried over the decades since the Bosselman report.

The state of Virginia accomplished this by a skillful combination of "carrot and stick" involving road fund investment policies and congestion-reduction strategies. One of the biggest challenges facing transportation planners is continued growth in population and development of Virginia, and as a result, the need to make better land use decisions. Improving the coordination between transportation and land use is imperative.

One key step in that direction was the development of traffic impact analysis requirements. Too often, local governments considered development proposals without accurate information on the traffic impacts of the proposed development. In 2006, the General Assembly of Virginia directed the Virginia Department of Transportation (VDOT) to develop Traffic Impact Analysis regulations.[6] These regulations require that all developments with a substantial impact on the state highway network use VDOT's statewide, uniform standards to analyze the impacts of the development on the transportation network. The first application of this regulation to a major development in northern Virginia developed sufficient information to cause the Board of Supervisors to reject a major new residential development because of its extraordinary impact on the local roads.[7]

Another improvement was to update the state's access management standards. Curb cuts and traffic signals have a significant impact on the capacity of highway corridors. Commercial growth frequently occurs along such corridors and tends to increase the number of entrances and signals along such roads. Right turns into and out of business entrances, left turns, and traffic signals all contribute to slowing traffic flow and reducing the capacity of these highways. In 2007, the Virginia General Assembly approved bills that require VDOT to establish new standards to manage access to state highways "through the control of and improvements to the location, number, spacing, and design of entrances, median openings, turn lanes, street intersections, traffic signals, and interchanges."[8] The principal purpose of these regulations, adopted by the Commonwealth Transportation Board, effective July 1, 2008, is to preserve the public investment in existing roadways by maximizing their performance, as well as to reduce the need for new highways and road widening by improving the performance of the existing network. The growth management and environmental benefits of such goals being realized are substantial.

Also in 2007, the legislature passed a bill addressing "urban development areas."[9] This law requires high growth localities to establish urban development areas (UDAs) to allow for concentration of dense development. A UDA is an area that is appropriate for dense development because of its proximity to transportation facilities and existing development. Residential densities must be at least four dwelling units per acre within a UDA and must also incorporate the principles of "new urbanism," including reduced street width, reduced setbacks, and a mix of land uses.

This kind of compact development encourages and promotes walking and cycling, more efficient transit services,

4. Chesapeake Bay Protection Agreement among D.C., Maryland, Pennsylvania, Virginia, and EPA.
5. Chesapeake Bay Preservation Act (1988).
6. Senate Bill 699.
7. In Virginia, virtually all roads in developments are taken into the state system as soon as they are constructed, and thus the state, not the local government, must maintain them. The state has both a programmatic and a financial interest in getting land use right.
8. Senate Bill 1312; House Bill 2228.
9. House Bill 3202.

and fewer vehicle miles traveled. In May 2009, the Commonwealth Transportation Board approved funding for a UDA Planning Grant Program. This state funding will enable local governments to employ consultant services for assistance in designating UDAs and revising local ordinances to combine the principles of new urbanism with traditional neighborhood design. While this might also promote "green building," it is the transportation goals that are driving this quiet revolution.

House Bill 3202 also authorized the same high-growth localities to implement road impact fees to help pay for the cost of new transportation infrastructure in order to offset the impacts of new development. Prior to this bill, localities were limited to requesting voluntary contributions from developers for improvements to the transportation system. Such properly implemented road fee programs can help reward developments that minimize the impact on the road network and assure that all development, not just those requiring a rezoning, pay their proportional share of costs for improving the road system.

Unlike most states, Virginia is responsible for maintaining most local subdivision streets. The state almost always accepted streets for perpetual public maintenance without considering the overall public benefit they provided. This frequently resulted in a network of one-way-in and one-way-out street networks that forced all trips to use the regional highway network to get from one subdivision to another or to a local shopping center. The bottlenecks that result from such design are numerous and cause delays, inconvenience, and pollution. The Virginia General Assembly passed legislation requiring new Secondary Street Acceptance standards, which were then adopted by the Commonwealth Transportation Board in February 2009. These new standards aim to ensure that streets accepted for perpetual state maintenance provide public benefit. Now, for example, streets in new developments must connect to adjacent developments to allow for local trips to use the local streets and thus disperse traffic.

Finally, in 2009 the General Assembly unanimously adopted legislation that included recommendations from the state Climate Commission relating to transportation and land use.[10] The new law requires that the Statewide Long Range Transportation Plan explicitly consider regional accessibility to promote urban development areas as major components of the plan, and that VDOT work with regional organizations (such as Regional Planning District Commissions and Metropolitan Planning Organizations) to develop regional transportation and land use performance measures. Regional organizations will use these measures to analyze the impacts of land use on the transportation network. This law also provided VDOT with the authority to establish standards for the coordination of transportation and land use planning to promote commuter choice and transportation system efficiency.

The "quiet revolution" anticipated by Bosselman and Callies continues. It is surprising sometimes how it occurs. The necessity to improve and maintain a 21st century multimodal transportation system that moves people and goods to their destinations in environmentally responsible ways has quietly transformed the relationship and made the connection between local land use and state transportation planning and management.

10. Senate Bill 1398; House Bill 2019.