ARTICLES

Back to the New: Millennials and the Sustainable Food Movement
Laurie Ristino ................................................................. 1

Demographic Trends in Non-Metropolitan America: Implications for Land Use Development and Conservation
Kenneth M. Johnson .......................................................... 31

Assessing State Policy Linking Disaster, Recovery, Smart Growth, and Resilience in Vermont Following Tropical Storm Irene
Gavin Smith, Dylan Sandler, and Mikey Goralnik .......................... 66

Changing Times: Shifting Rural Landscapes
Mark B. Lapping and Sandra L. Guay ..................................... 103

Stopping Low-Density Rural Residential Sprawl
Robert Liberty ................................................................. 124

NOTES

A Clear-Cut Danger: Commercial Logging Threatens the Quality of Boston’s Drinking Water Supply
Casey Ryder .................................................................... 151

Re-Stitching the Urban Fabric: Municipal-Driven Rehabilitation of Vacant and Abandoned Buildings in Ohio’s Rust Belt
Elizabeth M. Tisher .......................................................... 173
# Vermont Journal of Environmental Law

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BACK TO THE NEW: MILLENNIALS AND THE SUSTAINABLE FOOD MOVEMENT

By Laurie Ristino*

I. An Extremely Truncated History of Modern Agriculture in America ..... 2
II. A Transformational Moment.............................................................. 15
III. Creating a New Legal Framework for Small Farms & Food Entrepreneurs ................................................................. 20
   A. The Unique legal needs of the new food movement ................. 22
   B. Sustainability........................................................................... 23
   C. Customizability/Innovation....................................................... 25
   D. Scale....................................................................................... 26
   E. Diversification........................................................................ 27
   F. Social Justice and Equity.......................................................... 28
IV. Conclusion.................................................................................. 30

Nothing should be made by man's labour which is not worth making, or which must be made by labour degrading to the makers.
— William Morris

Social movements are sometimes old ideas reconstituted through the prism of a new age. Thus, the arts and crafts movement was a return to handicraft in the fractured age of industrialism.¹ In America, Frank Lloyd Wright was its iconic, architectural practitioner, steeped in craft, but embracing a modern vision. A feature of humanity is that as we push forward, we reach back seeking to anchor the soul.²

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2. See Paul Kingsnorth, Dark Ecology, ORION, Jan./Feb. 2013, (invoking the scythe as a metaphor for regaining human autonomy, freedom, and control through the use of pre-industrial technologies in a “technoindustrial” age, and stating that “[i]f you want human-scale living, you
It is through this lens that I have come to see the movement of the millennial generation back to the land to produce sustainable food. Backed by citizen knowledge and the media savvy of a post-modern world, the sustainable food movement is marked by a desire to return to the land’s natural bio-dynamics. It is built upon a generalized awareness wrought by the 1970s environmental movement, but eschewing its limitations. This article describes the sustainable agriculture and food movement in relation to conventional agriculture and food. It argues that, for the movement to fulfill its promise as a viable alternative to conventional agriculture, the legal and policy framework that is necessary to support it must institutionalize its core values.

This article is divided into three sections: the first orients the reader by providing a brief history of American agricultural development from Industrialization through the post-1985 farm bill. The second section describes the emergence of the sustainable farming and food producer movement, which has accelerated in the second decade of the millennium. The third section argues that a robust legal framework is needed to support and give shape to the coalescing sustainable agriculture and food policy, that this framework must reflect the movement’s values and ethos, and that the law is, in fact, capable of this.

I. AN EXTREMELY TRUNCATED HISTORY OF MODERN AGRICULTURE IN AMERICA

But the most striking difference of all was that in 1940 America had rivers on both coasts teeming with salmon, abalone steak was a basic dish in San Francisco, the New England fisheries were booming with cod and halibut, maple trees covered the Northeast and syruping time was as certain as a calendar, and flying squirrels still leapt from conifer to hardwood in the uncut forests of doubtless do need to look backward”); James Howard Kunstler, Back to the Future, ORION, July/Aug. 2011, (arguing that, due to environmental exigencies, the cities of the future will need to return to a “human scale” and will look more like the cities of “a distant yesteryear”).

3. See LINDSAY LUSHER SHUTE ET AL., NATIONAL YOUNG FARMERS COALITION, BUILDING A FUTURE WITH FARMERS: CHALLENGES FACED BY YOUNG, AMERICAN FARMERS & A NATIONAL STRATEGY TO HELP THEM SUCCEED 10 (2011) (stating, “[t]he young men and women pursuing agriculture today have a different profile than generations past: they come from diverse backgrounds and experiences, they embrace sustainable growing practices, and many did not grow up on a family farm. Their families may have abandoned rural areas for the city many generations ago. Pursuing a farming career is a return to these roots.”); See generally Neil D. Hamilton, America’s New Agrarians: Policy Opportunities and Legal Innovations to Support New Farmers, 22 FORDHAM ENVTL. L. REV. 523 (2011) (regarding younger generations returning to the farm and government support structures).
Appalachia. All of this has changed. It is terrifying to see how much we have lost in only seventy years. —Mark Kurlansky

The transformation of American agriculture in the last century is startling. The roots of that transformation lie in the Second Industrial Revolution of the last quarter of the nineteenth century, which among other things, changed agriculture from a backbreaking, manual affair, to an efficient, industry in only a few decades. The history of modern American agriculture, including its complex, deep-rooted relationship to the federal government, tends to be unknown to most Americans. The inventions, policies, and economics that transformed agriculture are mere footnotes in our American history books—a reflection of American society’s remove from the source of food production. As a result of our disengagement, food production and the policies that shape it have largely been a mystery to Americans; in that knowledge void, the myth of farming as pastoral and inherently noble has persisted.

Given this, a brief summary of the industrial transformation of agriculture in the last century and the interplay between farming and the federal policies is necessary to frame the import of the modern food and farming revolution.

Basic farming tasks—the tilling and preparing of the soil—was done by plows pulled by horses, mules, or oxen, until tractors were widely adopted in the 1930s. Leading up to this time, Americans designed many improvements to the plow, including the use of new materials (from iron to steel by a blacksmith named John Deere); construction of beams and moldboards (for pushing the soil back to earth); and refined blade angles to facilitate shedding of soil. By 1902, the first production tractor, a leviathan built by Hart-Parr, was introduced to market. For most farmers, the tractor

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5. See Bruce L. Gardner, American Agriculture in the Twentieth Century 8 (2002); Paul K. Conklin, A Revolution Down on the Farm 97-99 (2008) (writing that “rapid changes in . . . machinery, electrification, chemical inputs, and plant and animal breeding” provided the necessary conditions for startling growth in agricultural productivity, labor efficiency, and yields per acre from 1935 until the mid-1980s).
6. See generally Gardner, supra note 5, at 8–47 (regarding the changes in agricultural method).
7. See Susan A. Schneider, A Reconsideration of Agricultural Law: A Call for the Law of Food, Farming, and Sustainability, 34 WM. & MARY ENVTL. L. & POL’y REV. 935, 93840 (2010) (tracing the roots of the mythologies surrounding farming back to Jefferson’s writing on agrarianism—the idea that farming was uniquely worthy from other human industry, manifesting a governmental paternalism towards agriculture and “agricultural exceptionalism” in the environmental regulatory treatment of agriculture).
8. See generally Conklin, supra note 5, at 1–18.
9. Id. at 5–6.
was too expensive, heavy (at thirty-five thousand pounds), and impractical, except for use on large western expanses. In 1917, Henry Ford introduced a cheaper tractor, greatly impacting the market. Throughout the 1920s until the 1930s, innovations resulted in tractors that were cheaper, smaller, more maneuverable, and able to plow and plant seeds. By the early 1900s, drills for planting row crops and grains, as well as fertilizing, were in use and largely replaced hand sowing and fertilizing.

For many crops, harvesting was the most labor-intensive stage, with grains involving a three-step process (cutting stalks, threshing, and winnowing out the chaff). Advances in cultivation began during the American Revolution with the cradle replacing the scythe. Then by 1835, a more costly tool, the reaper and binder, revolutionized harvest. The development of combines, the most expensive farming inventions of the nineteenth century, was underway in the period leading up to the 1880s. Combines harvested grains, removed the grain from the stalk, and separated the chaff. Early combines were pulled by giant steam engines, weighing up to forty thousand pounds, impractical for most farmers until improvement led to their widespread use in the East in the 1940s. The invention of barbed wire in the nineteenth century began to displace split rail fencing, transforming the cattle industry. With the mechanization of agriculture, farmers increasingly specialized their crop production to take advantage of economies of scale in the marketplace. Although there were regional differences in agriculture production, in general, mechanization resulted in farmers being less self-reliant, as they became dependent on industrial infrastructure for transport and distribution, and bankers to help finance larger operations.

By the 1870s, as industrialization gained momentum, the number of Americans engaged in farming dropped below fifty percent of the population as America rapidly urbanized. At the same time, the aforementioned advances in technology increased production on farms,
decreasing reliance on manual labor. By the turn of the century, many farmers were doing better economically than ever before, with the exception of southern farms, where agriculture was locked into a system of tenancy and poverty, resulting from a legacy of slavery.

A recurring theme in American agriculture is the use of the power of the collective to ensure the well-being of farmers. During the Industrial Revolution, cooperative organizations emerged in England as a way for the working poor to leverage power. The use of collectives by groups to gain economic clout had a long history in the United States, with the first cooperative established by Benjamin Franklin. Cooperatives gained new agricultural prominence in the 1930s when the Hoover Administration, in attempt to stabilize agricultural prices during the Depression, encouraged farmers to join cooperatives to gain leverage in the market.

In America, the Granger movement, or the Patrons of Husbandry, was founded in 1867, and gained momentum in the 1870s, when rising railroad transportation costs, falling crop prices, and Congress’ reduction of paper money devastated farmers’ livelihoods. The Granger movement organized locally to regulate railroad transportation costs for grain and establish grain houses for the benefit of farmers. Arising during the Progressive Movement, many granges supported a host of reforms, including women’s suffrage, government control of railroads, and free mail delivery in rural areas. Although the power of the Granger movement waned throughout

19. See generally CONKLIN, supra note 5, at 4 (stating, “[g]radual improvements in agricultural productivity before 1930 involved two factors: reduced labor for each acre cultivated, and improved yields per acre).
20. Id. at 3.
23. See CONKLIN, supra note 5, at 52–53.
26. HURT, supra note 18, at 205.
the years, the organization still exists, and grange halls in rural America continue to serve a community function.  

A consistent and powerful factor in the development of modern American agriculture was (and still is) the federal government. The relationship of farmers to the federal government and federal policy is key to understanding the complexities underlying current agriculture policy as embodied by the farm bill—what we grow and why. Early governmental support included federal and state funding of infrastructure (roads, railroads, and canals), disposal of federal lands to homesteaders, and land grants for public schools and universities. As industrialization gained momentum, a concern for the prosperity of the agriculture sector arose in policymakers. Consequently, in 1862, the first of the Morrill Land Grant Acts was passed, establishing land grants for colleges for the purpose of teaching agricultural and the mechanical arts, as well as to provide access to higher education to all social classes. Starting in 1887, Congress began funding the agricultural research stations under the auspices of the land grant universities. In 1914, the Smith Lever Act created cooperative extension, the purpose of which was to transfer knowledge from the land grant universities to farmers (a task the land grant universities had failed to do successfully on their own). In 1916, the Wilson Administration supported the Federal Farm Loan bill, which for the first time provided federal funds to support farms by providing long-term loans for mortgages. Thus, by the beginning of the 20th century, the federal government had established a central role in agriculture research,

27. See also About Us, National Grange of the Order of Patrons of Husbandry, http://www.nationalgrange.org (last visited Nov. 10, 2013) (claiming 2,100 active grange halls throughout the U.S.).
28. See CONKLIN, supra note 5, at 19.
29. Justin Smith Morrill (1810–1889), born just down the road from Vermont Law School, was first a Vermont Representative, and then a Senator. He was the chief sponsor of the Land Grant College Acts of 1862 and 1890, which established many public universities and colleges. Morrill had wanted to go to college but did not have the means to do so. The Land Grant Acts provided the opportunity for the working class and minorities to obtain a higher education. He is also known as one of the founders of the Republican Party. See MORRILL HOMESTEAD, http://www.morrillhomestead.org/ (last visited Nov. 10, 2013) (providing a biography of Morrill and a description of the Land Grant Colleges).
33. HURT, supra note 18, at 26.
development, and the agricultural economy.\textsuperscript{34} The farm related legislation in the 1930s further deepened the relationship between the federal government and farmers.\textsuperscript{35}

This relationship is based upon (at worst) a political paternalism that the nobility of the farmer and farm life, in part a legacy of Jeffersonian agrarianism, should be preserved in the face of urbanization.\textsuperscript{36} At the same time, federal policies and programs ironically led to the adoption of modern farming techniques and the commodification of agriculture, thereby actually moving agriculture away from the pastoral ideal. By the 1920 census, for the first time in America, more people lived in the cities than in rural America.\textsuperscript{37}

At the beginning of the twentieth century, the combined effect of government support and the industrial revolution was unprecedented farmer prosperity. But, farmer prosperity would turn out to be cyclical, impacted by domestic and international commodity prices, wars, trade, climate, and other events.\textsuperscript{38} During World War I, an increased demand for American commodities kept prices high. With demand high, farmers borrowed money to buy new lands to cultivate.\textsuperscript{39} These prosperous years, however, were

\textsuperscript{34} See Mary Jane Angelo, \textit{Corn, Carbon, and Conservation: Rethinking U.S. Agricultural Policy in a Changing Global Environment}, 17 \textit{Geo. Mason L. Rev.} 593, 621 (2010) (describing government support for agriculture in the early nineteenth century, including land grants, and funding for agricultural research); Julie Andersen Hill, \textit{Bailouts and Credit Cycles: Fannie, Freddie, and the Farm Credit System}, 2010 \textit{Wis. L. Rev.} 1, 10–16 (2010) (describing the history of the Federal Farm Loan Act and government involvement in the agricultural economy); See \textit{Conklin}, supra note 5, at 19 (describing how government support for agriculture increased after the Civil War, including support for “research, regulatory legislation, subsidized irrigation projects, and accessible, low-interest credit,” all of which paved the way “for the farm legislation of the New Deal”).

\textsuperscript{35} See Hill, supra note 34, at 16–17.

\textsuperscript{36} William S. Eubanks, \textit{A Rotten System: Subsidizing Environmental Degradation and Poor Public Health with Our Nation’s Tax Dollars}, 28 \textit{Stan. Env’tl. L.J.} 213, 217 (2009) (“When Jefferson became president in 1801, 95% of the nation’s population worked full-time in agriculture. Although this percentage has declined significantly over the past two centuries, Jeffersonian agrarianism left an indelible imprint on the United States and ‘remains to this day an important component of our national rural identity and is embedded in farm politics and policies’”) (internal citation omitted). See generally \textit{Daniel Imhoff, Food Fight: The Citizen’s Guide to the Next Food and Farm Bill} 37–42 (2nd ed. 2012) (describing the history of Jeffersonian agrarianism).

\textsuperscript{37} \textit{Natl. Agric. Stat. Serv.}, USDA, 1920 \textit{Census of Agriculture} 23 (1920) (stating, “[o]f the total population in 1920, 51,406017, or 48.6 per cent, were classified as rural, while in 1910 the rural population formed 54.2 per cent of the total. There has been a gradual decrease in the percentage of the population classified as rural since the classification was established by the Bureau of the Census. In 1920, however, for the first time, the rural population formed less than one-half of the total”).

\textsuperscript{38} See \textit{generally Jason Henderson et al., Agriculture’s Boom-Bust Cycles: Is This Time Different?}, Fourth Quarter 2011 \textit{Fed. Reserve Bank of Kan. City Econ. Review} 83; Mike Boehlje et al., \textit{Ctr. for Commercial Agric., Is the Current Farm Prosperity Sustainable?} (2012) (analyzing present farm prosperity in light of the inherently cyclical nature of the agriculture industry).

\textsuperscript{39} See \textit{id.} at 84 (stating, “[b]y the late 1910s, robust export demand during the war sent agricultural commodity prices and farm incomes climbing . . . by the end of the war in 1919, U.S.
followed by the depression of the late 1920s and 1930s. The farm population fell to 30.5 million, while farms grew bigger in size.\textsuperscript{40} Prices dropped precipitously due to less demand. At the same time, farmers over-produced, leading to a glut and, ultimately to a mass dumping of crops.\textsuperscript{41} Farmers lobbied for government involvement and assistance.\textsuperscript{42} In response, the federal government employed various strategies, each largely unsuccessful, in an attempt to control commodity prices.\textsuperscript{43}

The Roosevelt Administration, with the support and pressure of various farm groups,\textsuperscript{44} stepped in to help farmers, as it did for other sectors of the economy, with sweeping legislation. Specifically, in 1933, Congress passed the Agriculture Adjustment Act,\textsuperscript{45} which, among other things, authorized the federal government to pay farmers not to produce commodities as a way to help control commodity prices. In the 1930s, Congress also established the Rural Electrification Administration, which had a fundamental impact on farm life by providing electricity to rural America.\textsuperscript{46}

\textsuperscript{40} See HURT, supra note 18, at 66.
\textsuperscript{41} See CONKLIN, supra note 5, at 66 (stating, “[t]he first year of the AAA was full of both confusion and controversy” leading to “the plowing under of part of a growing cotton crop and the slaughtering of pigs and sows,” and producing only a slight reduction in surpluses); See also Jon Lauck, After Deregulation: Constructing Agricultural Policy in the Age of “Freedom to Farm,” 5 DRAKE J. AGRIC. L. 3, 7–11 (2000) (describing the evolution of economic regulation in agricultural markets leading up to the Great Depression, and explaining how the Agricultural Adjustment Act was a direct reaction to overproduction and agricultural market failure). See generally Gary D. Libecap, NAT’L BUREAU OF ECON. RESEARCH, THE GREAT DEPRESSION AND THE REGULATING STATE: FEDERAL GOVERNMENT REGULATION OF AGRICULTURE: 1884–1970 6–19 (1998), available at http://www.nber.org/chapters/c6893.pdf.
\textsuperscript{42} IMHOFF, supra note 36, at 42 (stating, “[h]istorian Bernard DeVito wrote that ‘farmers throughout the West were always demanding further government help and then furiously denouncing the government for paternalism, and trying to avoid regulation’ “); JOHN MARK HANSEN, GAINING ACCESS: CONGRESS AND THE FARM LOBBY, 1919–1981, at 6 (1991) (stating, “[i]n the mid-1920s . . . the agricultural lobbying groups proved their superiority to political parties in meeting the election needs of Midwestern rural legislators . . . moreover, the chronic agricultural depression convinced lawmakers that the popularity of the farm relief issue would not soon subside . . . [A]ccordingly, members of the Agriculture Committee from the Midwest established strong working relationships with the farm groups”). See also Theda Skocpol & Kenneth Finegold, State Capacity & Economic Intervention in the Early New Deal, 97 POLITICAL SCI. Q. 255, 258 (1982) (describing the rise of the American Farm Bureau Federation as a major lobbying force after the Agricultural Adjustment Act); HURT, supra note 18, at 52.
\textsuperscript{43} See CONKLIN, supra note 5, at 66.
\textsuperscript{44} HURT, supra note 18, at 66–96 (providing an overview of New Deal legislation impacting the agricultural sector).
\textsuperscript{45} Agricultural Adjustment Act, ch. 25, Title 1, 48 Stat. 31 (1933) (codified in scattered sections of 7 U.S.C.).
\textsuperscript{46} See HURT, supra note 18, at 89.
Congress would follow-up the Agricultural Adjustment Act of 1933 with several other pieces of agricultural legislation, ultimately leading to what is considered the first farm bill in 1965. These laws focused on stabilizing prices of commodity crops as they were considered representative crops. Specifically, the Frazier-Lemke Bankruptcy Act of 1934 (prevented banks from repossessing farms); Bankhead-Jones Farm Tenant Act of 1937 (authorized the government to purchase distressed (“dust bowl”) lands and established a credit program for tenant farmers to purchase lands); Agricultural Adjustment Act of 1938 (replaced the Agricultural Adjustment Act of 1933, which was declared unconstitutional, and established the Commodity Credit Corporation, the entity responsible for paying commodity support payments and purchasing surplus crops); Agricultural Act of 1948 (made reforms to the 1938 Act, including establishing mandatory commodity payments at ninety percent parity, which had the effect of farmers increasing production to match profit margins of the war years); Agricultural Act of 1949 (established the school lunch program and authorized donation of surplus food to “friendly” countries); Agricultural Act of 1954 (established flexible price support for various commodities); Agricultural Act of 1956 (authorized payments to

47. The original Agricultural Adjustment Act of 1933 focused on decreasing surpluses of seven commodities: wheat, cotton, corn, rice, tobacco, hogs, and dairy products. Id. at 69. The Act focused on these “basic commodities” as opposed to fruit and vegetable crops for three reasons: 1) because these seven commodity crops “influenced the prices of other commodities,” 2) they were each “running a surplus,” and 3) their production and distribution could be easily regulated because of their processing requirements. Id. Today, the five major commodity crops receiving the bulk of farm bill support are corn, soybeans, wheat, cotton, and rice. See ENVTL WORKING GRP., Farm Subsidy Primer, EWG FARM SUBSIDY DATABASE, http://farm.ewg.org/subsidyprimer.php (last visited Nov. 10, 2013) (providing a basic introduction to the current subsidy system, and stating that although support is primarily targeted at the five major commodity crops, sugar and milk are also heavily regulated and have a separate price support system under the farm bill).

48. See HURT, supra note 18, at 69 (discussing the reasons the Agricultural Adjustment Act targeted specific crops). See also ENVTL WORKING GRP., The United States Summary Information, EWG FARM SUBSIDY DATABASE, http://farm.ewg.org/region.php?fips=00000 (last visited July 16, 2013) (regarding commodity crop prices over the last 20 years).


farmers to remove land from production for a period of time with the intent to reduce commodity production and control prices); and Farm Credit Act of 1971 (consolidated existing elements of farm credit law to support farmers and ranchers). In sum, the various laws passed by Congress continually attempted to control price and supply of commodities through land retirement or various types of commodity payments.57

Approximately every five years, beginning in 1965, Congress began passing omnibus legislation popularly referred to as the farm bill. The farm bill sets forth federal policy regarding food, agriculture, and, as it has evolved, a broad range of other areas. The farm bills are: Food and Agricultural Act of 1965;58 Agricultural Act of 1970;59 Agricultural and Consumer Protection Act of 1973;60 Food and Agriculture Act of 1977;61 Agriculture and Food Act of 1981;62 Food Security Act of 1985;63 Food, Agriculture, Conservation, and Trade Act of 1990;64 Federal Agriculture Improvement and Reform Act of 1996;65 Farm Security and Rural Investment Act of 2002;66 and Food, Conservation, and Energy Act of 2008.67 By 2008, the farm bill (the last farm bill as of this writing) had

57. See IMHOFF, supra note 36, 37–42; CONKLIN, supra note 5, at 63–76.
63. Food Security Act of 1985, Pub. L. No. 99-198, 99 Stat. 1354 (codified as amended in scattered sections of 7 U.S.C.). The Food Security Act of 1985 is notable for its inclusion of the so-called Swampbuster and Sodbuster provisions in the Conservation Title (title II). These provisions linked farm payments to conservation compliance, the reduction of soil erosion, and the prohibition of converting wetlands for the purposes of crop production. These provisions were fairly radical given the past policies of the federal government to encourage cultivation. These same provisions were hotly debated by Congress in the 2012–2013 farm bill process. See also NAT’L SUSTAINABLE AGRIC. COAL., FARMING FOR THE FUTURE: A SUSTAINABLE AGRICULTURE AGENDA FOR THE 2012 FOOD AND FARM BILL 39–42 (2012) (discussing the changes needed to the 2012–2013 farm bill).
swelled to thirteen titles with a cost of about $973 billion in mandatory outlays over a decade long period. The largest portion of this outlay at $764 billion is the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps; the second biggest outlay are the combined commodity programs, with crop insurance totaling $84 billion and farm commodity price and income supports at $59 billion; followed by outlays for conservation at $62 billion.

The number of acres in cropland has fluctuated somewhat over time (e.g., 325 million acres in 1910 compared to 408 million acres in 2007). However, the composition of the crops has changed significantly, and the yield per acre has skyrocketed. For example, the acreage in oats (used to feed horses), rye, buckwheat, and flaxseed have precipitously declined since the early 1900s. The acreage in soybeans, negligible in the early 1900s, has now increased to over 70 million acres, the second largest field planted crop in the United States (corn being the largest). The changes in crop composition were due to multiple factors, including the movement to mechanized production, global demand, and federal subsidies. These changes also included the dominance of homogenous crops to maximize production efficiencies, resulting in the loss of crop diversity, a critical

provide valuable ecosystem services, and includes provisions that support beginning and socially disadvantaged farmers. See id.

69. Id. at 6.
70. GARDNER, supra note 5, at 19.
74. In addition to influencing crop composition, federal subsidies also keep commodity crop prices substantially lower than prices on non-commodity crops like fruits and vegetables, which do not receive federal dollars. These price differences ultimately impact America’s food choices, since prices for food items produced using ingredients derived from commodity crops tend to be lower. See Commodity Policy & Agricultural Subsidies, YALE RUDD CTR. FOR FOOD POLICY & OBESITY, http://www.yaleruddcenter.org/what_we_do.aspx?id=81 (last visited Nov. 10, 2013) (discussing how industrialization, increased food yields, and subsidies have lowered the price of select foods).
element of food security. It is estimated that at one time humanity used about 7,000 species to meet its needs. Now, humankind only cultivates about 150 species, and most people live off of around twelve species.

Corn is a prime example of the role of government policies in the creation and maintenance of demand. The link between federal policy, corn production, and corn’s ubiquity in our food system has been well explored by, among others, journalist Michael Pollan. Corn now accounts for ninety percent of the total feed grain with most of the crop used to feed livestock. Due to rising corn prices, the acres of corn planted in 2012 were the highest since 1937. The impact of commodity prices is systemic. For example, between 2008 and 2011, rising commodity prices resulted in the conversion of 27.3 million wetlands, grasslands, and other habitats into agricultural land. These losses occurred mainly in the Great Plains, many areas of which were devastated by drought in 2012, compounding natural resources impact.

In 1910, farmers harvested an average of twenty bushels of corn per acre. By the 1990s, corn yield had risen to 170 bushels an acre.

75. See generally José Esquinas-Alcazar, Protecting Crop Genetic Diversity for Food Security: Political, Ethical, and Technical Challenges, 6 NATURE REVIEWS: GENETICS 946 (2005); COMM’N ON GENETIC RES. FOR FOOD & AGRIC., FOOD & AGRIC. ORG. OF THE UNITED NATIONS, SECOND REPORT ON THE STATE OF THE WORLD’S PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE 3–22 (2010); Who We Are?, GLOBAL CROP DIVERSITY TRUST, http://www.croptrust.org/content/who-we-are (last visited Aug. 31, 2013) (regarding the current diversity of human cultivation and diet, as pertaining to crop production.).

76. Esquinas-Alcazar, supra note 75, at 947.

77. Id.

78. Michael Pollan, The Omnivore’s Dilemma 19 (2006) (“There are some forty-five thousand items in the average American supermarket and more than a quarter of them now contain corn.”). See also King Corn (Mosaic Films Inc. 2007) (examining the role of government subsidies in perpetuating America’s top commodity crop.).


productivity gains by the mid-twentieth century were driven by increased inputs such as chemical fertilizers and herbicides, the technology for which was developed for the munitions and related military industries that supplied the wars of the twentieth century. In other words, these dramatic increases in productivity over the twentieth century were fueled by intensive carbon usage.

Concurrent with the increase in monoculture commodity production, the total number of farms has decreased from a high of 7 million farms in 1935 to 1.9 million farms in 1997. Midsized farms have continued to decline and the remaining farms are larger in acreage. Larger farms comprise a relatively small proportion of farm households, but they account for the bulk of agricultural production. Unlike smaller farms, which generally rely on off-farm income, these larger farms rely on farm profits for a higher percentage of household income. Government payments accounted for five to eight percent of total gross cash farm income over the last several years. The consolidation and disappearance of small and mid-size farms is the result of policies and an economic structure that favors economies of scale and intensive capital investment.

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83. CONKLIN, supra note 5, at 97–99.
84. Id. at 108–11.
85. See IMHOFF, supra note 36, at 13949 (noting that “[o]n average, at least 10 calories of fossil fuel are used for every calorie of industrial food eaten” and that “[n]itrogen fertilizers, synthesized from natural gas, are the backbone of high-yield industrial farming, consuming more than one-third of the energy used in U.S. agriculture”); CONKLIN, supra note 5, at 111–12 (writing that from 1950–1980 farmers rapidly increased the use of fossil fuel based fertilizers in order to address soil deficiencies and maintain high yields).
87. Id. (stating that “farms with fewer than 50 acres and farms with more than 500 acres have both increased their share of total farms since 1974, but midsize farms’ share has declined”).
88. See USDA, Farm Bill Forum Comment Summary and Background, Farm Family Income 2 (2006), available at http://www.usda.gov/documents/FARM_FAMILY_INCOME.pdf (referencing 18% of farms with sales of $100,000 or more produce about 88% of total farm sales, and over 80% of farm commodity program payments go to these farming operations).
89. Id.
90. Id.
92. See HURT, supra note 17, at 134 (describing how increased petroleum costs and limited export markets following the Arab-Israeli War in 1973 put a squeeze on farm profits and spurred consolidation and increases in average farm acreage). See generally ROBERT A. HOPPE ET AL., USDA, ECON. RESEARCH SERV., SMALL FARMS IN THE UNITED STATES: PERSISTENCE UNDER PRESSURE (2010) (discussing the shift from small commercial farms to larger farms).
At the same time, the median age of farmers has increased from forty-five in 1900 to fifty-seven in 2007. Rural America is also aging. In 2008, 16.1% of the rural population was sixty-five years or older compared to 12.4% of metropolitan populations. Further, rural America is still losing population, with 56.3% of rural counties experiencing population loss compared to 17.9% population loss in metropolitan areas between 2000 and 2008. Yet, the majority of the American landmass, 71% in the forty-eight contiguous states, is still rural.

Farm real estate accounts for 84% of United States farm assets. Consequently, land values are an indicator of farm well-being. Farm ownership is generally the single largest asset and is, therefore, the principal source of collateral for loans. Farmland values have dramatically increased in recent years due to the rise in commodity prices and direct payments, which are linked to acreage not crop production. This rise in value has also created a fundamental barrier to farming for new or limited resource farmers. Importantly, it is estimated that within the next twenty years, 70% of agricultural lands will change hands. These statistics paint a picture of rural America, critical to the overall well-being of the nation, at an economic and environmental crossroads. At the same time, the challenges facing rural America also lay the groundwork for transformational change.

In sum, American agriculture has radically changed over the previous century, fueled by economics, technology, chemical inputs, and federal policy. These factors resulted in a consolidation of American farms into larger producers focused on commodity production, with tremendous resource inputs required to grow crops. Along the way, a mass exodus of rural America occurred, and with it, inexorable separation of people from...
the food they eat, impacting the diversity of farms in rural America and transforming the regional foodshed into an international one. All this has culminated against the backdrop of a world that is undergoing massive transformation wrought by climate change, which will alter where and what food is grown, with the pressure to feed a global population projected to reach nine billion by 2050.

II. A TRANSFORMATIONAL MOMENT

Infamously, in their article, The Death of Environmentalism, Michael Shellenberger and Ted Nordhaus lambasted the environmental movement’s failure to address the cataclysm of climate change. Their argument, criticized by many, nevertheless made insightful points about the narrowness of the movement, and, therefore, its self-imposed limitations. In part, they attacked environmentalists’ narrow definition of what constitutes “environmental” and the nearly hubristic failure of the movement to engage the interests of other potential allies.

Some believe that this framing is a political, not just conceptual, problem. “When we use the term ‘environment’ it makes it seem as if the problem is ‘out there’ and we need to ‘fix it,’” said Susan Clark, Executive Director of the Columbia Foundation, who believes the Environmental Grantmakers should change their name. “The problem is not external to us; it’s us. It’s a human problem having to do with how we organize society. This old way of thinking isn’t anyone’s fault, but it is all of our responsibility to change.”

Their provocation reflects what some Generation Xers suspect and millennials intuit—the solutions to the ‘environmental’ issues we face (systemic, irreversible) will not be found in traditional environmental


104. See generally MICHAEL SHELENBERGER & TED NORDHAUS, THE DEATH OF ENVIRONMENTALISM (2004) (asserting that the current environmental movement is ineffective in its messaging and achievement of its goals).

105. Id. at 12.
The stark manifestations of climate change bring the limitations of traditional environmental law into sharp focus. Our traditional legal taxonomy (environmental, energy, corporate) is a hindrance to solving human/environmental problems because these divides perpetuate linear problem-solving.

However, instead of proclaiming that environmentalism is dead—I make this argument: it is alive and well. But, the practitioners do not necessarily call it “environmentalism” because such an ethos is internalized within the movement itself. Moreover, the new ‘environmentalists’, if you will, are eschewing traditional law taxonomies and mixing legal disciplines in new and creative ways.

The new food and agriculture movement is Exhibit A in this theory. In 2011, Time magazine proclaimed that “Foodies Can Eclipse and Save the Green Movement.”

Even as traditional environmentalism struggles, another movement is rising in its place, aligning consumers, producers, the media and even politicians. It’s the food movement, and if it continues to grow it may be able to create just the sort of political and social transformation that environmentalists have failed to achieve in recent years. That would mean not only changing the way Americans eat and the way they farm—away from industrialized, cheap calories and toward more organic, small-scale production, with plenty of fruits and vegetables—but also altering the way we work and relate to one another. To its most ardent adherents, the food movement isn’t just about reform—it’s about revolution.


107. See, e.g., AMY CURTIS, LOCAVESTING: THE REVOLUTION IN LOCAL INVESTING AND HOW TO PROFIT FROM IT (2011). For example, the “locavesting” or “Slow Money” movement works towards social and environmental change through community investment in small business, which involves creative navigation of complex securities laws and finding new ways to structure corporations. Id. at vii-x. Locavesting is directly inspired by the Slow Food movement; thus, the two movements have much in common. Id. at 147. Local food businesses and other small enterprises are the beneficiaries of this movement, which takes back investing from Wall Street. Id. at 147–158. Whereas Wall Street is deeply impersonal, offering few discernible benefits to local communities given the remove and diversion of tremendous wealth into largely paper exercises, locavesting works at a human scale. Id. at 31–46.


110. Id.
Food and agriculture are ripe for this new kind of environmentalism for two fundamental reasons: our framework of existing environmental laws often provides exceptions or simply fails to address the environmental impact of producing food and fiber; and traditional agriculture law largely evolved to support conventional, large scale agriculture, which fails to provide sustainable legal solutions for local agriculture and food.

This revolution did not occur over night. The roots of the new food movement began over forty years ago in 1960s counter-culture as a reaction to the industrialized food system described in Part I. The amoeba-like reach of the counter-culture movement was embodied in the youth of Steve Jobs who, as a commune-going, apple harvester by day, built computer chips at night, thereby merging flower power with technology. The end result was to wrest computing from giant corporate mainframes and into the hands of the individual. More obviously, the mother of farm-to-plate, Alice Waters, was also a product of 1960s California, where she graduated from Berkeley in 1967 and studied abroad in France, inspired by what another influential culinary icon, Julia Childs, had experienced years before.

I had been very politically disillusioned and I was definitely part of a counter culture movement at Berkeley, remembers Waters, and I had come back from France, utterly inspired by the food and by those little places that served food, the places that welcomed the neighborhood and bought at the markets nearby. I remember clearly thinking—‘that’s how I want to live my life, that’s what I want’. It was in that sort of naïve place that I opened Chez Panisse. It was never any question for me that if I had good food—people would come. At least all my friends would come! And I was appealing absolutely to the people of the counterculture.

Famous food writer, editor and former Berkeley restaurant owner, Ruth Reichl discussed the origins and trajectory of the new food movement with Michael Pollan. Pollan stated “[t]he conversation about food does begin

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111. See generally J.B. Ruhl, Farms, Their Environmental Harms, and Environmental Law, 27 Ecology L.Q. 263 (2000) (exposing agriculture as one of the last frontiers of environmental regulation by cataloging the exceptional treatment accorded to agriculture in American environmental law). See also Eubanks, supra note 36, at 28 (providing a comprehensive review of the environmental and health impacts of American farm policy as embodied in the farm bill).

112. See WALTER ISAACSON, STEVE JOBS 52–59 (2011) (discussing Steve Jobs time working at both the All One Farm and Atari).

back in the ’70s. People don’t realize it. They think the food movement began with me or Eric Schlosser [who wrote Fast Food nation in 2001].”\textsuperscript{114} Reichl responded that “[f]or me it began with Frankie Lappé. Changed my life. Diet for a Small Planet, 1971.”\textsuperscript{115} Thus, the roots of the current food movement are over forty years deep, grounded in the counter-culture, but slowly, over decades, being absorbed into the mainstream as the popular food culture has taken hold.\textsuperscript{116}

A new generation is now taking to the land, perhaps unknowingly building upon the foundation of the counter-culture movement. The members of the new food movement have alternatively been referred to as the New Agrarians\textsuperscript{117} or Greenhorns.\textsuperscript{118} This generation grew up in a technology-soaked, food-aware culture unlike their Baby Boomer or Generation X parents. They should not be mistaken for their hippie forebears.\textsuperscript{119} Importantly, Millennials came of age after the heyday of 1970s environmentalism and have no recollection of the glaring and visually apparent environmental problems (e.g., rivers on fire) that these environmental laws handily addressed.\textsuperscript{120} Professor Neil Hamilton has

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\item \textsuperscript{114} Interview by Ruth Reichl with Michael Pollan, author (June 2013) (on file with Smithsonian Magazine).
\item \textsuperscript{115} Id. See also FRANCIS MOORE LAPPE, DIET FOR A SMALL PLANET (20th Anniversary ed. 1991) (critiquing grain-fed meat production and to link meat production practices to global food insecurity). DIET FOR A SMALL PLANET eventually sold over three million copies.
\item \textsuperscript{116} One example of the mainstreaming of the food culture is the growing popularity and corporatization of organic foods. See Philip H. Howard, Consolidation in the North American Organic Food Processing Sector, 1997-2007, 16 INT’L. J. OF SOCIOLOGY OF AGRIC. & FOOD 13, at 27 (providing a pictorial representation of the consolidation of the organics industry).
\item \textsuperscript{117} See, e.g., Hamilton, supra note 3 (identifying members of the new food movement as “New Agrarians”). Although the term “agrarian” is often used interchangeably with “agricultural,” the two terms have distinctly different meanings. CONKLIN, supra note 5, at 180. “Agrarian” has a social or political meaning, which extols the virtues of rural society over urban society. See id. Thomas Jefferson embraced the agrarian ethos and built Jeffersonian Democracy around the belief that farmers were the most valuable citizens and the truest Republicans. See id. at 181; See Schneider, supra note 7, at 939–940 (contending that agrarianism also has a more radical political meaning, that is, as a political proposal to take land from the rich and redistribute it to the poor and citing the persistence of the Jeffersonian idealized farmer as one reason for America’s lingering belief in the illusion of agricultural pastoralism). CONKLIN, supra note 5, at 180. This notion of agrarianism goes back to Rome’s Agrarian Laws, which put limits on the amounts of land anyone could hold and redistributed land from the rich to the poor. John P. McCormick, “Keep the Public Rich, But the Citizens Poor: Economic and Political Inequality in Constitutions, Ancient and Modern,” 34 CARDOZO L. REV. 879, 884–85 (2013).
\item \textsuperscript{118} See generally, GREENHORNS, http://www.thegreenhorns.net/ (last visited Nov. 10, 2013) (introducing the newest iteration of the green food movement).
\item \textsuperscript{119} See Beth Hoffman, How ’Millenials’ are Changing Food as we Know It, FORBES (Sept. 4, 2012), available at http://www.forbes.com/sites/bethhoffman/2012/09/04/how-millenials-are-changing-food-as-we-know-it (providing an interesting take on how Millennials will use consumer spending power to change the food system).
\item \textsuperscript{120} See RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 59 (2004) (describing how the Cuyahoga River fire and the Santa Barbara oil spill in 1969 served as “visual confirmation” of environmental problems, and motivated environmental lawmaking).
described the New Agrarians as ‘cultural creatives’ who generally have the following characteristics:

- Facility with technology
- Marketing skills to develop new economic activities
- Embrace farms as a food business which can serve as a platform for other entrepreneurial endeavors
- Capacity and leadership to generate local development
- Value sustainability and environmental conservation, not as a burden but as a responsibility
- Commitment to the idea of community
- Relationship-oriented (to the consumer, neighboring farmers, and the land)
- Believe farming and producing food is a social good

Fundamental to this movement are the democratic principles that it embraces. “Food Democracy” is a framework for making food more responsive to citizens’ needs (health, access, quality) and decentralizing control of production. The timing of this new movement is serendipitous for a multiplicity of reasons. Given the increasing age of farmers, the need to increase food security due to climate uncertainty and global population pressures, the American obesity crisis, and the unsustainable resource inputs into conventional farming, these new farmers are critically needed.

121. Hamilton, supra note 3, at 526. I concur with Professor Hamilton’s synthesis of the core attributes of the New Agrarians, having observed first hand these qualities in the new farmers of Vermont and in the students at the Vermont Law School, many of whom have worked on farms, founded their own CSAs, and worked in farm to plate establishments.

122. Fable Farm, in Barnard, Vermont, provides one example of creative marketing and entrepreneurship; during the summer, Fable Farm makes its diversified offerings available through a Community Supported Agriculture Program, and puts on open-air theater events complete with dinner made from farm produce. Fable Farm advertises farm events and sells tickets via their website and various social media. See FABLE FARM, http://fablefarm.org/ (last visited Nov. 10, 2013) (discussing the various opportunities the farm offers to get involved).

123. For example, in Barnard, Vermont, a collective of farmers is pioneering a cooperative business model to gain access to greater farm acreage. At the same time, they offer multiple activities on their farm, including potlucks, a mini farmers’ market, music events, and Community Supported Agriculture shares, all integrated with a strong sense of community and creativity. Id.


However, legal and policy infrastructure that developed over the last century in support of large-scale conventional farming does not provide an appropriate legal structure or tools for the new food movement.\textsuperscript{129} This is true on multiple fronts, including scale, capitalization, risk management, marketing, distribution, and processing, among others. Accordingly, the last section of this article sets forth recommendations toward a framework for the developing law of sustainable food and agriculture systems.

### III. CREATING A NEW LEGAL FRAMEWORK FOR SMALL FARMS & FOOD ENTREPRENEURS

It is the pervading law of all things organic and inorganic, of all things physical and metaphysical, of all things human and all things superhuman, of all true manifestations of the head, of the heart, of the soul, that the life is recognizable in its expression, that form ever follows function. This is the law.

—Louis Sullivan\textsuperscript{130}

This paper proposes that a new legal framework, with specific principles that guide its development, is essential to ensure that the new food movement\textsuperscript{131} thrives and is durable as a viable alternative to

\textsuperscript{129}See generally Sustainable Econ. Initiative, Economic Resurgence in the Northern Forest (2008), available at

\textsuperscript{130}Louis H. Sullivan, The Tall Office Building Artistically Considered, Lippincott’s Mag., Mar. 1896, at 403–09. The famous phrase “form follows function” was coined by architect Louis Sullivan, one of the great American architects, arguably one of the ‘fathers’ of architectural modernism.

\textsuperscript{131}In this paper, I generally use the term “new food movement” instead of “new agrarian movement,” or any other label. The term “new food movement” is intended to include not only farmers, but also food entrepreneurs such as retailers, restaurateurs, and value-added and artisanal food producers. Even though the focus of this paper is the food movement, the recommendations made here also apply to fiber and biomass production, which are especially critical for sustainability and economic development in the highly wooded areas of the country. See generally Sustainable Econ. Initiative, Economic Resurgence in the Northern Forest (2008), available at

\textsuperscript{128}Importantly, a significant number of the “new agrarians” who are rising-up to support a more democratic food system are minorities, women, and veterans. See Hamilton, supra note 3, at 524–25.

\textsuperscript{130}See also Emily Broad Leib & Amanda Kool, Using Cross-Practice Collaboration to Meet the Evolving Legal Needs of Local Food Entrepreneurs, Nat. Resources & Env’t (forthcoming) (explaining that: “...as the U.S. food chain grew and consolidated, so did the legal and regulatory regime that governs the food system. The existing body of laws is intended to apply to massive food industries and is thus ill-equipped to govern small-scale, local food enterprises. While local and state governments have in some instances stepped in to encourage policy changes that would accommodate the shift in consumer demand toward local food by encouraging entrepreneurs to step into this field, there are still many legal barriers that stand between local food entrepreneurs and the customers they hope to serve. Even in places where local laws and policies are tailored to small-scale food enterprises, barriers to market entry still persist, especially for entrepreneurs who lack the resources to conduct legal research or retain counsel to assist in developing their enterprises.”).
conventional agriculture. The legal needs of small and mid-sized farmers and food entrepreneurs are different from large-scale producers because of their size, localization, resource limitations, business goals, customer base, and liability risk, among other differences. This translates into the need for advocacy that is tailored to address the unique legal challenges facing small farmers and entrepreneurs in areas such as food safety, food marketing, processing, and distribution. In addition, innovative tools are needed to address fundamental barriers to new farmer entry such as land access and tenure, which require legal mechanisms to address. Because of the different legal needs of the new food movement, lawyers and policymakers have an exciting and unique opportunity to build legal tools and infrastructure.

Inherent in the development of this new infrastructure should be the intention to avoid replicating past pitfalls while creating law that furthers public policy goals of sustainability, equity, access, economic development, human and animal health, and food security.

This article proposes the following foundational legal elements for the new food movement. Each of the elements is consistent with, and perpetuates, the overarching ethos of the movement that supports a food democracy.

A. The Unique Legal Needs of the New Food Movement


132. Custom slaughter and the raw milk debates are examples of how the conventional legal system is a mismatch for small-scale food. See Allison Condra, Food Sovereignty in the United States: Supporting Local & Regional Food Systems, 8 J. FOOD L. & POL’Y 281, 288–90 (2012) (providing an overview of laws impacting slaughter and raw milk production at the local, state, and federal levels).

133. See USDA, KNOW YOUR FARMER, KNOW YOUR FOOD COMPASS 40–45 (2012) (describing the challenges that meat and poultry producers face in accessing local markets because of the meat processing facility consolidation).

134. American traditional ownership models of fee or leasehold interests are often high barriers for new farmers because of expensive land costs or land insecurity due to the failure to memorialize leasehold relationships. See Annette M. Higby et al., CENTER FOR SUSTAINABLE AGRICULTURE, UVM EXTENSION, A LEGAL GUIDE TO THE BUSINESS OF FARMING IN VERMONT 67 (2006), available at http://www.uvm.edu/farmtransfer/LegalGuide.pdf. Moreover, when leaseholds are only for short periods, new farmers have little incentive to invest in building up the soil, and installing and maintaining farm infrastructure. See generally Edward Cox, A Lease-Based Approach to Sustainable Farming, Part I: Farm Tenancy Trends and the Outlook for Sustainability on Rented Land, 15 DRAKE J. AGRIC. L. 369 (2010) (describing how short term tenancy leads to lesser investment into agricultural and land health).

As a threshold matter, the legal and policymaking communities must recognize that the legal needs of the new food movement are different from conventional agriculture, and therefore, creative legal tools are needed to serve this population. This fact is not necessarily intuitive. To date, the focus of local government, non-profits, and others has occurred around policy infrastructure for the sustainable food movement. However, nearly every step in the sustainable food chain requires law to support it. The policy work done to date is a fine start, but without the legal infrastructure to undergird policy, it will have limited traction in our rule of law society.

For example, as noted above, the need for unique land tenure arrangements to make land affordable for new farmers requires the creative use of legal tools (e.g., cooperatives, conservation easements, novel contractual relationships, leases, or a combination thereof). Other areas where legal issues are unique for small farms that require specialized advocacy are labor and employment issues because small farms often must rely on internship programs or other volunteer labor.

Until recently, the legal Academy has been slow to embrace food and agriculture law, which was once the province of “Big Ag” schools in the Midwest, and generally focused on traditional agricultural law. Now, there is a burgeoning interest in the food and agriculture law and law schools have taken notice by starting new centers. The challenge will be to harness this energy, amplify efforts, and avoid duplication in order to support the far-reaching, durable food movement. Importantly, the legal products created must be made accessible to food producers. This will

136. See, e.g., VERMONT SUSTAINABLE JOBS FUND, http://www.vsjf.org/ (last visited Nov. 10, 2013) (created by the Vermont legislature in 1995, VSJF provides grants and loans to individuals and businesses to support the green economy, with a current focus on strengthening the state’s food system through the Farm to Plate Investment Program). See also Farm to Plate Strategic Plan, VT. FOOD SYSTEM ATLAS, http://www.vtfoodatlas.com/plan/ (last visited Nov. 10, 2013) (describing the goals and plans of the Vermont Farm to Plate program).

137. See, e.g., How it Works, WWOOF, http://wwoofinternational.org/how-it-works/ (defining “Woofer” as a volunteer farm laborer. There are national and international organizations where individuals can find matching farms to work).

138. Drake Law School and, to some extent, the University of Arkansas School of Law are the historical exceptions. See Agricultural Law Center, DRAKE LAW, http://www.law.drake.edu/academics/agLaw/ (last visited Nov. 10, 2013); See LL.M. Program, UNIV. OF ARK. SCHOOL OF LAW, http://law.uark.edu/academics/llm/ (last visited Nov. 10, 2013).

require lawyers and the law schools to rethink how they communicate and reach out to this population.\textsuperscript{140}

\textbf{B. Sustainability}

The new food legal framework and the tools that comprise it need to be designed to support sustainable solutions. Admittedly, the term “sustainable” is fuzzy. In this legal framework, sustainable is meant at a minimum to mean both economically and environmentally sustainable. Regarding economic sustainability, the new food movement will not survive if farmers and food entrepreneurs cannot make livable wages that compensate for the hard work of producing America’s food. History has shown that the pressure to attain economies of scale (“get big or get out”)\textsuperscript{141} undermined small and mid-sized farmers in America. In order to avoid this fate, the new food movement—its small, mid-sized farms, and entrepreneurs—must be supported by law, policies, and government financial assistance programs.\textsuperscript{142}

In addition, the new legal framework must support legal relationships and responsibilities that prioritize land stewardship. In part, this is done inherently by supporting diverse and small operations. The law supports stewardship and conservation when it provides advocacy for community supported agriculture, farmers markets, and gleaning programs, by reducing the carbon footprint and food waste, and by keeping food local. But, another key factor is ensuring that conservation is incorporated into farming at the outset, and before environmental issues arise. This will require modifications in the farm bill and improved access for new farmers to the resources the farm bill can provide.\textsuperscript{143}

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\textsuperscript{140} See generally Laurie Ristino, \textit{In Support of Practical Legal Scholarship}, NAT. RESOURCES \& ENV'T., Spring 2013, at 55–57 (regarding the need to incorporate practical knowledge and science into law writings).
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\textsuperscript{141} This was infamously uttered by 1970s era Secretary of Agriculture, Earl Butz, who also championed breaking out lands to plant crops “fence row to fence row.” See Tom Philpott, \textit{A Reflection on the Lasting Legacy of 1970s USDA Secretary Earl Butz}, GRIST (Feb. 8, 2008, 1:31 AM), http://grist.org/article/the-butz-stops-here/.
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\textsuperscript{142} The Farm Bill has begun to recognize the many barriers that beginning farmers face as they strive to enter the profession, and has targeted some resources to them. See, \textit{e.g.}, Beginning Farmer and Rancher Development Program, 7 U.S.C. § 3319(f) (2008) (highlighting the government programs aimed at small beginning farmers). Likewise, other recent USDA initiatives such as “Know Your Farmer, Know Your Food” are an example of the kind of programs and policies that are needed to support the new food movement. See \textit{Know Your Farmer, Know Your Food}, USDA, http://www.usda.gov/wps/portal/usda/knowyourfarmer?navid=KNOWYOURFARMER (last visited Nov. 10, 2013). However, the ultimate success of the movement will require a deeper paradigm shift on the part of the Department to allocate greater resources to local and regional food systems.
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\textsuperscript{143} SHUTE ET AL., supra note 3, at 32–34 (providing policy recommendations for improving access to Farm Bill programs for beginning farmers, such as the Environmental Quality
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One of the key aspects of the sustainable food movement is its grounding in, and reclaiming of, community. Thus, the legal tools that are developed should reflect this value. One aspect of community-based values in the new food movement is its embrace of the sharing economy. In a sharing economy, social relationships, not price points, are the basis for resource allocation. Further, sharing economies facilitate sustainable use of resources because resources are shared (e.g., processing equipment, farm machinery, and land) reducing duplication and waste.

The use of collective structures for land tenure, food production, marketing, and distribution is being innovated by farmers and food producers, as well as investors. Law is needed to create and document these structures so that the resulting relationships are successful.

Cooperatives—businesses based on a model of democratic ownership that arose out of the dislocations of the Industrial Age—are enjoying a revival in everything from energy to food. In Wisconsin, as an epic clash between unions and a budget-slashing governor played out in the state capital, the state’s rural cooperatives were demonstrating that more harmonious and productive models are possible.

The ideals of community and mutual reliance (American values as old as the West) are being exhibited in the farm to restaurant model as well. For this model to work as an intimate relationship between the diner and the farm, which diners seek, restaurateurs and farmers must forge unique relationships, ultimately memorialized in contracts, which reflect a shared risk of seasonality, climate, and supply. Further, such a relationship engages the restaurateur in forming supply chains with farmers, thereby creating markets to support local farmers.

Incentives Program (EQIP) and Conservation Stewardship Program (CSP); Hamilton, supra note 3, at 529–46 (arguing that the USDA should make new farmers a key priority, and providing policy recommendations to facilitate increased USDA support for new farmers).

144. See generally Janelle Orsi, Practicing Law in the Sharing Economy: Helping People Build Cooperatives, Social Enterprise, and Local Sustainable Economies (2013) (presenting the concept of the sharing economy, as well as concrete legal frameworks necessary to facilitate its existence).

145. Cortese, supra note 107, at x.

As the new food movement grows, one key challenge for the law will be to maintain the nature of these relationship-based agreements while providing legally sufficient certainty.

**C. Customizability/Innovation**

As noted above, some legal infrastructure may be created without changing overarching federal or state laws and regulations. It is here that significant innovation is occurring. For example, to reduce barriers of food processing and food distribution, food hubs are being created. At a food hub, cost and scale barriers are reduced through a sharing of facilities. Food hubs can be non-profits, hybrid business organizations, or for-profits.

The choice of legal structure, which reflects the relationship of the farmers and producers that use such facilities, is necessarily a legal one based on the mission of the food hub.

Entities like food hubs fall under the general category of social enterprises. In the context of the food movement, social enterprise law is where business and environmental law meet. As the Social Enterprise Alliance explains, a social enterprise possesses the following characteristics:

- It directly addresses an intractable social need and serves the common good, either through its products and services, or through the number of disadvantaged people it employs.
- Its commercial activity is a strong revenue driver, whether a significant earned income stream within a non-profit’s mixed revenue portfolio, or a for-profit enterprise.
- The common good is its *primary* purpose, literally “baked into” the organization’s DNA, and trumping all others.

The use of social enterprise structures by the new food movement reflects the deeply creative nature of the movement as well as the need for customizable solutions given the diversity of food production and

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147. The corollary is true as well. When federal laws preempt local laws, such as in the case with food safety, legal changes will take longer because they will require movement in the status quo and then statutory amendment. See Condra, *supra* note 132, at 308–10 (describing federal preemption issues impacting the production and marketing of local foods).
entrepreneurism that is occurring (and necessarily must occur to rebuild a
diverse, localized food source).  
Another way in which the new food movement is fertile ground for
innovating legal solutions is in new capitalization mechanisms, such as
slow money strategies, angel investors, and crowd-funding. These
mechanisms for raising capital to grow businesses provide a much-needed
alternative to conventional financing because many small farmers and food
entrepreneurs cannot service traditional debt. Alternative capitalization
strategies avoid catastrophes like the farm debt collapse of the 1980s, which
ruined many small and mid-sized farmers. But, alternate capitalization
mechanisms require legal solutions to avoid running afoul of securities laws
and to ensure transparency for all parties, who often are members of the
same community, engaging in the transaction. One example of creative
capitalization is that of High Mowing Seeds, an organic seed company in
Vermont. High Mowing raised capital through a convertible debt offering
where investors provided capital with returns occurring after five years.
Investors could choose to convert their investment to shares; then a debt
note, and receive their money back with interest, or maintain ownership in
the company and receive dividends.

D. Scale

The legal infrastructure and tools must be scaled to the sustainable food
movement so that the law does not crush the movement in cost and process.
For example, a risk assessment for food safety, which provides information
on liability and indemnification, needs to be specific to smaller producers
and retailers. Risk associated with the activities of a larger scale producer or
retailer is not necessarily the same level of risk associated with a smaller
producer or retailer given the number of potential people impacted and

150. For example, King Arthur Flour is organized as a L3C, a modified form of the limited-liability corporation for businesses with a social purpose. See Bruce DeBoskey, How to Profit From Doing Good, THE DENVER POST, Aug. 21, 2011, available at http://www.denverpost.com/business/ci_18721769 (last updated Aug. 21, 2011) (discussing how businesses can be profitable while still giving back to the community).
151. Crowd funding is when a group of individuals pool their money to support a wide variety of activities, often having a socially positive purpose. CORTESE, supra note 107, at 127.
152. See HURT, supra note 17, at 135–38 (detailing the federal government’s role in aiding farmers during the twentieth century farm debt collapse).
method of production as well as other factors. Accordingly, regulation and liability spreading mechanisms should be adjusted.\textsuperscript{155}

At the same time, the law can provide solutions that allow small farmers to scale up without growing larger, thereby achieving greater economies of scale necessary to successfully compete in the marketplace while remaining small and local. These sharing economies tools include collateral for local producers for bank loans, invested in local distribution infrastructure for local producers and established a fund to provide collateral for local farms, and food programs, many of whom sell their products in the co-op’s two stores. See also Shonna Dreier & Minoo Taheri, WALLACE CENTER, INNOVATIVE MODELS: SMALL GROWER AND RETAILER COLLABORATIONS (2008), http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5091495 (analyzing the benefits of the Good Natured Family Farms model). See generally ADAM DIAMOND & JAMES BARHAM, USDA, AGRIC. MKTG. SERV., MOVING FOOD ALONG THE VALUE CHAIN: INNOVATIONS IN REGIONAL FOOD DISTRIBUTION (2012) (including a description of La Montañita Food Co-op in New Mexico, which invested in local distribution infrastructure for local producers and established a fund to provide collateral to local producers for bank loans).

\textsuperscript{155} See NAT’L. SUSTAINABLE AGRIC. COAL., FOOD SAFETY ON THE FARM: POLICY BRIEF AND RECOMMENDATIONS 6–8, 14 (2009) (noting that there is a significant gap in research and understanding about where in the supply chain produce actually becomes contaminated, and arguing that centralized processing and distribution may play a larger role in food contamination than growing and harvesting produce on small farms for direct sales to consumers).

\textsuperscript{156} See, e.g., Mission Statement and History of Good Natured Family Farms, GOOD NATURED FAMILY FARMS, http://www.goodnaturedfamilyfarms.com/Mission_Statement.html (last visited Nov. 10, 2013) (a coalition of over 150 independent farms in Kansas—including meat, dairy, and produce operations—who engage in cooperative aggregation, distribution, and marketing under the Good Natured Family Farms label). See also Farm Fund, COMMUNITY FOOD CO-OP, http://www.communityfood.coop/participate/giving-back/farm-fund/ (regarding the Community Food Co-op in Bellingham, Washington that allocates a portion of its surplus revenues to a revolving loan fund which makes grants to local farms and food programs, many of whom sell their products in the co-op’s two stores). See also Shonna Dreier & Minoo Taheri, WALLACE CENTER, INNOVATIVE MODELS: SMALL GROWER AND RETAILER COLLABORATIONS (2008), http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5091495 (analyzing the benefits of the Good Natured Family Farms model). See generally ADAM DIAMOND & JAMES BARHAM, USDA, AGRIC. MKTG. SERV., MOVING FOOD ALONG THE VALUE CHAIN: INNOVATIONS IN REGIONAL FOOD DISTRIBUTION (2012) (including a description of La Montañita Food Co-op in New Mexico, which invested in local distribution infrastructure for local producers and established a fund to provide collateral to local producers for bank loans).

outcomes. Given that food production is at the mercy of climate, building resilient systems is critical to ensure healthy local economies, especially as extreme weather events increase. Thus, the legal framework needs to be flexible enough to deal with multiple forms of agricultural production, often on the same farm, tailoring legal tools to the needs of the individual farm and food system.

Diversified farming systems are a set of methods and tools that work with the natural ecosystem of a plot of land or landscape to sustainably produce food. Crop polycultures are planted and animals are grazed in ways that replenish the land and make more efficient use of nutrients. One well-known example of using a whole system approach to farming is Polyface Farm, made famous by Michael Pollan’s Omnivore’s Dilemma and featured in the films, Food, Inc. and Fresh. At Polyface, cattle are rotated through pastures followed by poultry that pick through cattle droppings for insects and other nutrients. Given the diversity of operations and lack of economies of scale, the law is needed to provide solutions that allow for scalability and reduce market barriers (cooperatives, social enterprise, sharing arrangements).

F. Social Justice and Equity

Legal tools should be designed to support access to healthy food in multiple dimensions, including within and between rural and urban communities; by all people, regardless of socio-economic class; and to the means of food production (land, equipment, and markets). The food security and health of our citizens, environment, and animals depends

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158. See generally, Adam S. Davis et al., Increasing Cropping System Diversity Balances Productivity, Profitability and Environmental Health, PLOS ONE (Oct. 10, 2012), http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0047149 (showing how diversity is better for agricultural productivity and health).


160. See Food Inc. (Robert Kenner Films & Participant Media 2009).

161. See Fresh (produced by Ana Sofia Joanes 2009). See also POLLAN, supra note 78, at 122–33 (discussing the sustainable mechanisms in place at Polyface Farm and the ideals of the man who runs it).

162. See ORAN B. HESTERMAN, PH.D., FAIR FOOD: GROWING A HEALTHY, SUSTAINABLE FOOD SYSTEM FOR ALL 30–33 (1st ed. 2011) (identifying diet-related illness and lack of healthy food access in low-income communities as key problems in the U.S. food system); See generally MICHELE VER PLOEG ET AL., USDA, ECON. RESEARCH SERV., ACCESS TO AFFORDABLE AND NUTRITIOUS FOOD: MEASURING AND UNDERSTANDING FOOD DESERTS AND THEIR CONSEQUENCES (2009) (analyzing the correlation between obesity and food choices and availability). See also Obesity; USDA, ECON.
on the kind of access that only progressive policy supported by law can facilitate. For example, city ordinances regulating urban farming can facilitate access to local, sustainable food by streamlining the zoning process, using best practices developed by other urban centers, and legal access to abandoned lots and rooftops. Legal frameworks have the ability to remove barriers to access by ensuring food-friendly zoning, sufficient resource conservation (such as limiting run-off), access to water, access to financial assistance to support such initiatives, and solutions to address contaminated sites (Brownfields).

Another example of the how this new legal framework can support the social equity principle is gleaning programs. Gleaning is the collection or harvesting of produce that would otherwise be discarded at the farm, restaurant, packing facility, or backyard as waste. The food is then distributed to food shelves and pantries. Gleaning initiatives have a multiplicity of benefits, including, reducing food waste, providing nourishment to low-income citizens, and reducing dependency on imported food. To expand the role of gleaning, legal resources are needed to address liability. This is especially true when gleaning includes any degree of processing, the creation of incentives (e.g., tax credits) to compensate

References
166. For example, a Vermont-based non-profit called Salvation Farms runs a variety of programs, including traditional gleaning programs, to “move surplus food from farms to those who need it.” See SALVATION FARMS, http://www.salvationfarms.org/ (last visited Nov. 10, 2013) (discussing the organization’s mission to use surplus foods to feed people in need).
167. Food waste is a tremendous issue in this country. In 2011, more than 36 million tons of food waste was generated. Food waste is the single largest component of municipal solid waste. See REDUCING FOOD WASTE FOR BUSINESSES, U.S. EPA, http://www.epa.gov/foodrecovery/ (last updated Sept. 24, 2013) (indicating why and how businesses can recover their food waste).
farmers for their produce; and template governance documents to help perpetuate gleaning organizations.

Importantly, any conception of social justice in the new food movement must also include the physical and economic wellbeing of the workers who grow, harvest, and otherwise produce our food. However, the social justice of farm and restaurant workers has a tendency to be marginalized in the new movement dialog. International trade agreements and domestic agriculture policy result in a farm labor system fueled by immigrant labor. Much of this labor force is undocumented, with attendant issues such as low wages and poor or dangerous working conditions as well as a disproportionate impact on women and children. For the new food movement to be true to its values and offer a viable alternative to conventional food production, the treatment of farm and food workers must be addressed. This requires engagement in national policy as well as the adoption of state laws and policies that improve the circumstances of immigrant workers, such as the basic ability to acquire a driver’s license.

CONCLUSION

Agriculture in America radically transformed in a short period of time, fueled first by industrialization and then by technologies developed in the mid-twentieth century. From the late 1800s onward, the federal government, through a complex relationship courted by agriculture, played a critical role in agriculture through policy, including price supports. A grandchild of 1960s counter-culture, a new food movement, fueled by the millennial generation, has emerged. The new food movement is next generation environmentalism, eschewing the limitations of traditional environment law. The new food movement embraces multiple disciplines to, at its best, revitalize community, conserve limited resources, and practice democratic ideals. But, the new food movement, its agrarians, farmers, and food producers cannot prosper and perpetuate without a new legal framework. This article proposes that the new framework must embody the values that inform and fuel the new food movement and sets forth those central values from which the legal tools can be built in support of an equitable, healthy food system for all people.

168. See generally, Saru Jayaraman, Behind the Kitchen Door, (2013) detailing the difficult work conditions and poverty level wages of many restaurant workers, many of whom are people of color. Jayaraman is the founder of Restaurant Opportunities Centers United, an organization that works to improve the wages and working conditions for America’s ten million restaurant workers).


170. Id.
DEMOGRAPHIC TRENDS IN NONMETROPOLITAN AMERICA: IMPLICATIONS FOR LAND USE DEVELOPMENT AND CONSERVATION

By Kenneth M. Johnson*

Demographic Trends in Nonmetropolitan America: Implications for Land Use Development and Conservation .......................................................... 31
Data and Methods .................................................................................................. 33
Analysis .................................................................................................................. 35
  Historical Demographic Trends in Rural America .............................................. 35
  Recent Demographic Change in Rural Areas ...................................................... 37
  Natural Increase and Net Migration Produce the Rural Demographic Change 38
  The Great Recession has Influenced Rural Demographic Trends ................. 39
  Demographic Trends in New England and Vermont ........................................ 41
  Demographic Change Varies Across Rural America .......................................... 42
  The Rural Population is Aging ......................................................................... 44
  The Growing Minority Population is Contributing to Rural Demographic Change ............................................................. 45
Conclusions and Implications ............................................................................. 47

DEMOGRAPHIC TRENDS IN NONMETROPOLITAN AMERICA:
IMPLICATIONS FOR LAND USE DEVELOPMENT AND CONSERVATION

This research contributes new information delineating the rapidity and geographic scale at which demographic change is occurring in

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nonmetropolitan America. Rural areas are being buffeted by economic, social, and governmental transformations from far beyond their borders. These structural transformations are reflected in the demographic trends playing out across the vast rural landscape in the first decade of the twenty-first century. The patterns of demographic change in rural America are complex and subtle, but their impact is not. Population change has significant implications for the people, places, and institutions of rural America; for the natural environment that is a fundamental part of what rural America was, is, and will become; and for the laws and policies that seek to balance the rights of individuals with the needs of the larger society.

This article examines the influence of demographic forces on nonmetropolitan population redistribution trends in the U.S. in the first decade of the twenty-first century.

Rural America is a deceptively simple term for a remarkably diverse collection of places. Popular images of rural America are often based on outdated stereotypes that equate rural areas with farming. Though farming remains important in hundreds of counties, rural America is now very diverse. Geographically, it encompasses the vast agricultural heartland of the Great Plains sprawling from the Canadian border deep into Texas; the arid range of the Southwest; the dense, mountainous forests of the Pacific Northwest; the hardscrabble towns and hollows of the Appalachians; the rocky shorelines and working forests of New England; and the flat and humid coastal plain of the Southeast. Economically, it includes auto supplier plants strung like pearls on a string along the expressways of the auto corridor; manufacturing, food processing, and warehouse distribution centers clustered around major interstate interchanges; farm towns, grain elevators, and ethanol plants scattered through the corn and wheat belts; as well as sprawling recreational areas proximate to mountains, inland lakes, and the Atlantic, Pacific, and Great Lakes coastlines. There is also considerable variation in the demographic trends in rural America. Far more people lived in some rural counties a century ago than do today, and in hundreds of these declining counties more people are dying than being born. Other rural areas have experienced substantial population gains because of an influx of migrants and high fertility. Racial and ethnic diversity is growing as well. Though much of rural America remains overwhelmingly white, there are substantial African-American concentrations in the Southeast; Hispanic areas of long-standing in the Southwest, as well as new Hispanic destinations in the Southeast and Midwest; and clusters of native Americans in the Great Plains and upper Great Lakes.

Rural America contains seventy-five percent of the land area of the United States and nearly 51 million residents. The demographic changes
underway in this vast area are as diverse as the people, places, and institutions that populate it. These demographic changes are important because they have implications for the natural environment, landscape change, and rural policy. Analysis of the longitudinal demographic change in rural America illustrates the complex interplay between migration, natural increase, aging, and diversity that produced the population redistribution trends evident today.¹

DATA AND METHODS

There is more than one way to define what rural America is. In fact, the federal government uses some fifteen “rural” definitions.² Here, I delineate rural areas using counties as the unit of analysis. Counties have historically stable boundaries and are a basic unit for reporting fertility, mortality, and census data. Counties are designated as metropolitan or nonmetropolitan using criteria developed by the U.S. Office of Management and Budget (county-equivalents are used for New England). A constant 2004 metropolitan/nonmetropolitan classification is used here because it removes the effect of recategorization from the calculation of longitudinal population change. Metropolitan areas include counties containing an urban core of 50,000 or more population (or central city), along with adjacent counties that are highly integrated with the core county as measured by commuting patterns. There are 1,090 metropolitan counties. The remaining 2,051 counties are nonmetropolitan (Figure 1). Nonmetropolitan counties are further subdivided into those that are contiguous to urban areas (adjacent) and those that are not near urban areas (non-adjacent). The terms “rural” and “nonmetropolitan” are used interchangeably here, as are the terms “metropolitan” and “urban.”

Counties are also classified using a typology developed by the Economic Research Service of the U.S. Department of Agriculture, which classifies nonmetropolitan counties along economic and policy dimensions.³ The county classification developed by Johnson and Beale⁴ is

also used to identify nonmetropolitan counties where recreation is a major factor in the local economy.

County population data come from the decennial Census of Population for 1990, 2000, and 2010. They are supplemented with data from the Federal-State Cooperative Population Estimates program (FSCPE) births and deaths in each county for April 1990 to July 2009. Births and deaths from July 2009 to the Census in April 2010 were estimated at seventy-five percent of the amount from July 2008 to July 2009. The estimates of net migration used here were derived by the residual method whereby net migration is what is left when natural increase (births minus deaths) is subtracted from total population change.

Data for racial and Hispanic origin of the population are from the 2000 and 2010 Censuses and include five racial/Hispanic origin groups: (1) Hispanics of any race; (2) non-Hispanic whites; (3) non-Hispanic blacks; (4) non-Hispanic Asians; and (5) all other non-Hispanics, including those who reported two or more races. To examine the uneven spatial distribution of different racial and ethnic populations, counties were also classified as having minority concentrations if more than ten percent of the population was from a specific minority group. Black, Hispanic, Asian, and Native American peoples were the four minority groups that reached the ten percent threshold in at least one county. Counties that had two or more minority groups that reached the ten percent threshold were classified as multi-ethnic.

Age-specific net migration is computed as a numerical residual between the census count in 2010 and an “expected population” for that year. The expected population is generated by taking the census count at the beginning of the decade from Census 2000, adjusting this count for undercount/overcount and misallocations, and “aging” the population forward to 2010, taking into account births and deaths during the decade. The procedure yields age-specific estimates of net migration for every U.S. county.


The United States has experienced a selective deconcentration of its population over the past several decades. This produced a spatially uneven pattern of population redistribution in rural America that favored some areas at the expense of others. Rural America is a big place encompassing nearly seventy-five percent of the nation’s land area and 51 million people. Population redistribution trends in this vast area are far from monolithic. Some rural regions have experienced decades of sustained growth, while large segments of the agricultural heartland continued to lose people and institutions. Findings from other developed nations indicate deconcentration (often labeled “counterurbanization”) is underway there as well.

Population growth in rural America has always reflected a balance between natural increase (i.e., births minus deaths) and net migration (in-migration minus out-migration). Early in the nation’s history, net in-migration fueled most rural growth as vast new frontiers of the country were opened to homesteading and commercial development (e.g., forestry and mining). Soon after settlement, natural increase began to contribute heavily to population growth due to high rural fertility and low mortality rates among a growing young rural population of reproductive age. By the 1920s, however, people were leaving rural America; they were attracted by the economic and social opportunities in the nation’s booming big cities.
and pushed from rural areas by the mechanization and consolidation of agricultural production. The magnitude of rural out-migration varied from decade to decade and from place to place, but the general pattern was unchanging: more people left rural areas than came. Of course, there were exceptions to this trend in some industrializing regions, such as the Northeast, and at the urban fringe. Still, more than half of the nation’s rural counties lost population between 1920 and 1970.

By the mid-20th century, rural net out-migration losses were so great that the modest rural population gains were fueled entirely by natural increase. High rural fertility—helped along by the post-WWII Baby Boom—brought a surplus of births over deaths, which offset the substantial migration losses to urban areas. With the waning of the Baby Boom in the late 1960s, this large surplus of births over deaths that sustained modest nonmetropolitan population growth diminished. The relentless out-migration of young adults, along with aging in place, contributed heavily to the aging of the rural population, resulting in fewer births and increased deaths.

The diminishing population gains that characterized rural America for the first two-thirds of the century ended abruptly with the onset of the remarkable rural demographic turnaround of the 1970s. For the first time in at least 150 years, population gains in nonmetropolitan areas exceeded those in metropolitan areas; indeed, nonmetropolitan areas grew at the expense of metropolitan areas, as more people left urban areas than arrived in them. Widespread net migration gains in rural counties were fueled by rural restructuring—job growth associated with rural retirement migration, natural resources (e.g., coal and gas), and recreational development—as

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10. See generally Michael J. Greenwood, Research on Internal Migration in the United States: A Survey, 13 J. ECON. LITERATURE 397, 401 (1975) (explaining that some researchers have found that moving off farms has been profitable for migrants); Richard A. Easterlin, Population Change and Farm Settlement in the Northern United States, 36 J. OF ECON. HISTORY 45, 46, 70 (1976).


12. See Johnson, supra note 11, at 8 (identifying natural increase was sufficient to offset migration losses).


well as by urban sprawl and changing residential preferences. The rural-urban turnaround was short-lived. Rural population growth slowed in the 1980s with the return of widespread net out-migration from rural areas (Figure 2). But just as unexpectedly, rural population growth rebounded in the 1990s as migration to rural areas accelerated. However, as the 1990s came to an end, there was evidence that nonmetropolitan population gains were slowing. Thus, at the dawn of the twenty-first century, the demographic implications of natural increase and net migration for the future of rural America were once again in question.

Recent Demographic Change in Rural Areas

Nonmetropolitan population growth slowed precipitously after 2000. Between 2000 and 2010, rural counties gained 2.2 million residents (4.5%) to reach a population of 51 million in April of 2010. This growth rate was roughly half that during the 1990s, when the rural population grew by 4.1 million. Rural population gains between 2000 and 2010 were greatest in the West and Southeast, as well as on the periphery of large urban areas in the Midwest and Northeast (Figure 3). Scattered population gains also were evident in recreational areas of the upper Great Lakes, the Ozarks, and Northern New England. Population losses were common in the Great Plains and Corn Belt; in the Mississippi Delta; in parts of the Northern Appalachians; and in the industrial and mining belts of New York and Pennsylvania.

This slowdown was evident in rural counties both proximate to and remote from urban areas. Gains were greater in nonmetropolitan counties adjacent to metropolitan areas, just as they were from 1990 to 2000. In these adjacent counties the population gain was 5.5% between 2000 and 2010; only 57% of what it had been during the 1990s (Figure 4). In all, 63.4% of the adjacent counties gained population between 2000 and 2010. Among more remote nonmetropolitan counties, the gain was considerably smaller (2.7%). This was significantly less than the 6.4% gain such counties experienced during the 1990s. Only 44% of the non-adjacent counties

gained population between 2000 and 2010. Metropolitan population gains also diminished (from 14.0% to 10.8%), but the reduction was much more modest. A key question is: how did the demographic components of change combine to produce the smaller nonmetropolitan population gains during the post-2000 period?

**Natural Increase and Net Migration Produce the Rural Demographic Change**

During the 1990s, migration accounted for nearly two-thirds of the nonmetropolitan population gain of 4.1 million, but after 2000, less than half (46%) of the smaller population gain of 2.2 million came from migration. Nonmetropolitan counties gained 2.7 million residents from migration during the 1990s, but only about one million between 2000 and 2010. Migration gains also occurred in fewer rural counties during the last decade. Only 46% of the rural counties experienced a net migration gain between 2000 and 2010 compared to 65% between 1990 and 2000. Because natural increase in rural areas remained relatively stable over those two decades, the reduced migration gains after 2000 were the primary cause of the sharply diminished rural population growth.

In rural counties remote from metropolitan areas, there was a minimal net migration gain estimated at 46,000 (0.3%) between 2000 and 2010. Just 35% of these non-adjacent counties gained migrants. In contrast, such counties had a migration increase of 544,000 during the 1990s. Migration gains were greater (980,000) in counties that were adjacent to metropolitan areas. This represents a 3% gain from migration. Overall, 53% of the adjacent counties gained migrants between 2000 and 2010. Nonetheless, this recent migration gain was considerably smaller than that during the 1990s, when adjacent counties gained 2.4 million migrants (7.4%). With migration gains diminishing, natural increase produced most of the nonmetropolitan population growth between 2000 and 2010; accounting for 1.2 million of the gain of 2.2 million rural residents (54%). In fact, in non-adjacent nonmetropolitan counties, the natural increase of 418,000 (2.5%) accounted for 90% of the population gain. In adjacent nonmetropolitan counties, natural increase was 760,000 (2.4%). Here the contributions of natural increase and net migration were more balanced with natural increase contributing more than net migration.

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18. Immigration contributed more to rural migration gains between 2000 and 2010 than it did during the 1990s. No definitive immigration data are currently available for the period, but estimates from 2000 to 2009 suggest a substantial inflow of immigrants to both adjacent and nonadjacent counties. However, even with immigration on the rise, overall migration gains were significantly smaller in rural areas during the first decade of the twenty-first century.
increase, accounting for 44% of the population increase of 1.7 million. Though natural increase provided the majority of the rural population gain between 2000 and 2010, the absolute gain from natural increase in nonmetropolitan counties was smaller than during the 1990s. Rural natural increase was already slowing in the 1990s, when it supplied 1.4 million new residents. By the first decade of the new century, it produced just 1.2 million new residents.

Further evidence of the diminishing excess of births over deaths in nonmetropolitan areas is reflected in a sharp increase in the incidence of natural decrease there. Natural decrease occurs when more people die than are born in an area. It has been unusual in the American experience. However, recent Census Bureau estimates of births and deaths suggest that natural decrease is now at the highest level in U.S. history with deaths exceeding births in 1,135 (36%) of all U.S. counties. More than 90% of U.S. counties with episodes of natural decrease are nonmetropolitan; in parts of rural America deaths have exceeded births for decades. Between 2000 and 2009, nearly 750 nonmetropolitan counties (36%) experienced an overall natural decrease. This is up from approximately 29% in the 1990s and is the highest level of sustained natural decrease in U.S. history. Within rural areas, the incidence of natural decrease is influenced by proximity to metropolitan areas. Nearly 43% of non-adjacent counties had natural decrease between 2000 and 2010 compared to 30% of the adjacent counties. Natural decrease is not a fleeting concern. Once natural decrease occurs in a rural county, the probability that it will reoccur is extremely high.

The Great Recession Has Influenced Rural Demographic Trends

The recent Great Recession has been compared to the Great Depression of the 1930s because during each of these economically troubled periods migration rates were at extremely low ebb. The Great Recession’s impact

21. Id.
on migration has reverberated through the entire nonmetropolitan hierarchy. The overall nonmetropolitan population gain between 2010 and 2012 was just 24,000 because rural areas suffered a net migration loss. To examine how the recession influenced rural migration between 2000 and 2012, the period is divided into four segments: the pre-boom (April 2000 to July 2004); the boom (July 2004 to July 2007); the recession (July 2007 to July 2010), the post-recessionary period (July 2010 to July 2012). In rural America as a whole, population growth slowed in the recessionary and post-recessionary periods. The annual population gain between 2004 and 2007 was 304,000, but this slowed to 178,000 between 2007 and 2010, and to just 11,000 between 2010 and 2012 (Figure 5). Natural increase also slowed recently because of the recession. However, the population slowdown was primarily due to the sharp reduction in net migration during recessionary and post-recessionary years.

Recent research demonstrates that the impact of the recession on migration was spatially uneven. It was greater in adjacent nonmetropolitan areas, where the booming economy fueled peripheral growth and spatial sprawl from nearby urban areas during the peak years. In adjacent counties, the downturn reduced net migration gains because the number of people moving to these urban proximate counties sharply diminished. Paradoxically, in remote rural areas, which have historically experienced slow growth or population decline, the impact of the recession on migration has not been as great. Remote rural counties suffered migration losses early in the decade and gained migrants during the mid-decade boom, and then migration gain diminished during the recession. However, the reduction in net migration during the recession was far more modest in these remote rural counties.

Data from the Pew Hispanic Center shows that the net flow of new immigrants into the United States also slowed during the recessionary period. Immigrants are an important source of new growth in nonmetropolitan areas, so any recessionary slowdown in immigration is likely to influence rural areas. In addition, new data from the National Center for Health Statistics show a fertility decline of nearly 7.3% in the

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24. Id.
last three years.27 Given the importance of natural increase and immigration to nonmetropolitan growth, fertility declines and reduced immigration have significant implications for future rural demographic trends.

Demographic Trends in New England and Vermont

How do demographic trends in New England compare to those for America as a whole? With 14.4 million residents, New England is home to just five percent of the U.S. Yet the region reflects many of the diverse strands that together comprise the country’s demographic fabric: densely settled urban cores, expanding suburbs, struggling industrial towns, fast-growing recreational and retirement areas, and isolated rural villages. Overall, New England’s population gain between 2000 and 2010 was modest, but there are distinct regional differences in the demographic trends in New England. In northern New England (Maine, New Hampshire, and Vermont), population gains have generally been larger, with migration fueling much of the growth (Figure 6). This trend is more pronounced in New Hampshire and Maine than in Vermont, but migration made a positive contribution to each state’s population growth. Natural increase also contributed to population growth in northern New England. In southern New England (Massachusetts, Connecticut, and Rhode Island), the situation was quite different. Here, natural increase produced the bulk of the population gain, even offsetting migration losses in Massachusetts and Rhode Island. Prior research suggests that the migration gains in northern New England were primarily due to a net influx of migrants from elsewhere in the U.S. (including southern New England), whereas the southern tier is losing substantial numbers of domestic migrants, but gaining immigrants.28

Rural residents represent just 12.5% of New England’s population. Since 2000, nonmetropolitan New England has grown by 4% (70,000), reaching a population of 1.8 million by 2010. In contrast, the region’s metropolitan population grew by 3.7% to 12.6 million. Migration fueled most growth in rural New England (84%). In contrast, 98% of the population gain in metropolitan New England came from natural increase.

Vermont has the second largest proportion of rural inhabitants of any state (66%), so demographic change in rural Vermont is important to the

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state’s future. Yet, Vermont’s rural population grew by just 1% between 2000 and 2010. In contrast, the state’s urban population grew by nearly 6% (Figure 7). The minimal rural population gain was due almost entirely to natural increase. Rural Vermont had little net migration. The recession’s impact is also evident. Since 2010, rural Vermont has lost population because there was a net migration loss from rural areas and little natural increase to offset this net outflow of migrants. The migration loss to rural Vermont after 2010 was consistent with national rural trends; however, nationally, there was a sufficient excess of births over deaths to produce an overall population gain. This was not the case in Vermont.

Demographic Change Varies Across Rural America

Rural America is a simple term describing a large agglomeration of counties spread across a vast region. So, it is not surprising that there is significant variation in the patterns of demographic change across this region. Demographic processes at work in nonmetropolitan counties are reflected in the contrasting patterns of population change across the spectrum of counties that reflect the continuum from the most traditional to the most contemporary rural places.

Farming and mining represent the most traditional elements of the rural economy. Though they no longer monopolize the overall rural economy, these industries remain important in nonmetropolitan America. Farming still dominates the local economy of some 403 rural counties. Mining (which includes oil and gas extraction) is a major force in another 113 counties. Between 2000 and 2010, the population of farming dependent counties grew by just 0.3% and only 29% of them gained population (Figure 8). This minimal population gain was due to a natural increase gain of 3%, which was large enough to offset a migration loss. In contrast, farm counties grew by 5% during the 1990s because of the contribution of natural increase and migration. Mining counties were also entirely dependent on natural increase for their modest population gain of 2.7%. In all, just 56% of mining counties gained population between 2000 and 2010.

Manufacturing counties have traditionally been a bright spot of rural demographic change. In fact, rural development strategies traditionally focused on expanding the manufacturing base. Manufacturing is important to the rural economy because it employs a larger proportion of the rural labor force than it does in urban areas.29 In all, there are 584 rural manufacturing counties (including those that specialize in meat and poultry

29. JOHNSON, supra note 11, at 1–2.
processing) whose population grew 8.1% during the 1990s, due mostly to migration. However, growth slowed dramatically to just 3.1% between 2000 and 2010, though most manufacturing counties (57%) did continue to grow. Natural increase accounted for 75% of this population gain. In contrast, migration contributed only modestly to the population gain with just 47% of the manufacturing counties gaining migrants. Globalization, coupled with the recent economic downturn, adversely impacted the rural manufacturing sector, which includes many low-technology, low-wage jobs that are increasingly shifting offshore or disappearing as technology replaces labor.  

The demographic story was quite different in rural counties endowed with natural amenities, recreational opportunities, or quality of life advantages rather than dependant upon traditional rural extractive activities. Major concentrations of these counties exist in the mountain and coastal regions of the West, in the upper Great Lakes, in coastal and scenic areas of New England and upstate New York, in the foothills of the Appalachians and Ozarks, as well as in coastal regions from Virginia to Florida. Such high amenity counties have consistently been the fastest growing in rural America. The 277 rural counties that are destinations for retirement migrants exemplify this trend (Figure 9). In each of the past several decades, they have grown faster than any other rural county type. For example, their population gain was 13.4% between 2000 and 2010. The 299 nonmetropolitan recreational counties were close behind at 10.7%. Overall, 84% of the retirement destination counties and 69% of the recreational counties gained population during the decade. Migration fueled almost all this growth, accounting for 89% of the population gain in retirement counties and 81% in recreational counties. These migration streams include both the amenity migrants themselves and other migrants attracted by the economic opportunities generated by such rapid growth. However, recent population gains were considerably smaller than those during the 1990s, when retirement counties grew by 26% and recreational counties by 20%.

The Rural Population is Aging

30. Johnson & Cromartie, supra note 1, at 44–45; Johnson, supra note 11, at 17.
31. See generally David A. McGranahan, USDA ERS, Natural Amenities Drive Population Change (1999) (demonstrating various counties with such amenities); Johnson & Beale, supra note 4, at 12–19; See Typology Codes supra, note 3 (referring to the USDA’s typology).
32. Johnson et al., supra note 6, at 2, 4.
Rural America is also aging; this is a trend likely to accelerate in the near future. The rural population is already considerably older than that of the U.S. as a whole. In 2010, the rural population had 18% more people ages 60 to 69 and 23% more over age 70 than the U.S. as a whole (Figure 10). In contrast, rural areas had proportionally fewer young adults and fewer children than the overall U.S. population. For example, there were 12% fewer people in their 20s and 30s in rural America. Rural America’s proportion of seniors is increasing rapidly. Between 2000 and 2010, the rural population ages 60 to 69 increased by 36% and that of people ages 50 to 59 grew by 30%.

The primary driver of this rapid increase in the older rural population is the aging in place of those residing in rural America. This is reflected in the 2010 age structure data (Figure 11). These cohorts, born between 1946 and 1964, represent the Baby Boom. They were ages 46 to 64 in 2010. The bulge representing these age groups is considerably larger than the cohorts older than or younger than it. Having a large population in late-middle-age has distinct advantages for rural areas right now. It means the working-age population is large compared to those either too old or too young to work. As such, it represents a large pool of social, economic, and intellectual human capital. However, as we look to the future, the rural age structure presents significant challenges. There are currently 4.5 million 65 to 74 year-olds in rural America. In contrast, there are 6.8 million 55 to 64 year-olds and 7.5 million 45 to 54 year-olds in the Baby Boom cohorts. Although mortality will modestly diminish these numbers, most will celebrate their 65th birthday in rural America. As this group “ages in place,” the number and proportion of seniors will grow.

Age-specific net migration to rural America is also contributing to the aging of the rural population. Rural areas have lost young adults through net out-migration in each of the last three decades (Figure 12). Between 2000 and 2010, the rate of net migration loss among those in their late 20s was -171 per 1000, indicating that there were 17.1% fewer residents ages 25 to 29 than would have been expected had no migration occurred. Rural areas sustained similar migration losses in the 1980s and 1990s. Prior research suggests migration losses from this age group were even greater in the 1950s and 1960s. In contrast, rural areas gained migrants in their 30s and 40s in the two most recent decades. Migration gains were even greater among those over the age of 50, with the gains generally accelerating in the 1990s and 2000s. Thus for decades, migration drained young adults from

rural areas, while the older population aged in place and grew through migration. The combined effects of these migration trends accelerated the aging of the rural population. The demographic implications of the age structure shifts underway in the rural America are already evident in the steady decline in the number of rural births and the rising number of deaths. However, age structure shifts are not the only factor changing the rural demographic structure; the population is also becoming more racially diverse.

The Growing Minority Population is Contributing to Rural Demographic Change

Any analysis of recent demographic trends in rural America must also be cognizant of the growing impact that minority populations are having on rural population change. Between 2000 and 2010, minorities accounted for 83% of the nonmetropolitan population gain, though they represented just 21% of the rural population. Overall, the nonmetropolitan minority population grew by 1.8 million (21.3%) compared to a gain of just 382,000 (.95%) among the much larger non-Hispanic white population (Figure 13). Thus, while nonmetropolitan America remains less diverse than urban America (which is 36% minority), minority growth now accounts for most rural population increase, just as it does in urban areas.

There is considerable geographic variation in the levels of diversity in rural America (Figure 14). Large concentrations of African-Americans remain in the rural Southeast despite the migration of millions of blacks from the South during the first two-thirds of the 20th century. This outflow of blacks from the South has ended and the region is now seeing an influx of black migrants, though most are going to metropolitan areas. Long-standing Hispanic population concentrations in the Southwest indicate that there have been Hispanic rural residents for centuries. Recent research also documents the spread of Hispanics from these historical areas into rural areas of the Southeast and Midwest. Though small in overall numbers, native peoples are an important part of many rural communities in the Great Plains as well as in parts of the West. There are scattered areas in the Southwest where native peoples and Hispanics are found in the same counties, as well as growing areas where blacks and Hispanics reside in the

34. FREY, supra note 22, at 24.
same county in the Southeast and East Texas. But, in general, the growing diversity in rural America is on a modest scale with two or, at most, three racial groups residing in the same rural county. There are also large areas of nonmetropolitan America that remain overwhelmingly non-Hispanic white.

The driving force behind this substantial minority population gain in nonmetropolitan areas is the sustained growth of the Hispanic population. Hispanics remain spatially concentrated in urban areas. However, Hispanics—both native and foreign-born—are rapidly diffusing spatially, especially into smaller metropolitan cities and small towns and rural areas in the South and Midwest. Hispanics account for a rapidly accelerating share of rural population growth over the past two decades. During the 1990s, Hispanics accounted for 25% of the entire rural population gain, though they represented only 3.5% of the rural population in 1990. Between 2000 and 2010, Hispanics accounted for 54% of the rural gain, though they represented only 5.4% of the population in 2000. By 2010, the Hispanic population of rural America stood at 3.8 million, a gain of 45% from 2000.

Children are in the vanguard of this growing diversity in rural America. Nearly 28% of the nonmetropolitan population under the age of 18 in 2010 was minority compared to 18% of the adult population (Figure 15). Hispanics represent the largest share of this minority nonmetropolitan youth population, which is more than 12% of all rural children. The conventional wisdom is that growing child diversity is largely a big-city phenomenon. However, minority child gains were particularly important in rural areas, where the overall child population actually declined by nearly 900,000 (-10%) between 2000 and 2010. This decline occurred because there were 940,000 (-10%) fewer non-Hispanic white children in rural areas, and the black child population also declined (-11.6%). The overall loss of children was cushioned somewhat by a rural Hispanic child population gain of 434,000 (45.1%). The significant loss of white children coupled with a growing Hispanic child population accelerated the diversification of the rural child population.

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37. See Daniel T. Lichter & Kenneth M. Johnson, supra note 26, at 121, 127 (examining geographic settlement trends among Hispanic immigrants).
CONCLUSIONS AND IMPLICATIONS

This research contributes new information delineating the rapidity and geographic scale at which demographic change is occurring in nonmetropolitan America. Rural areas are being buffeted by economic, social, and governmental transformations from far beyond their borders. These structural transformations are reflected in the demographic trends playing out across the vast rural landscape in the first decade of the twenty-first century. Such demographic trends have important implications for land use and the environment, as well as for the legal and policy frameworks that govern rural areas. Demography may not be destiny, but rural scholars, practitioners, and policy-makers ignore it at their peril.

In the first decade of the twenty-first century, rural population gains were considerably smaller than they had been during the rural rebound of the 1990s. Nonmetropolitan areas grew by just 2.2 million people between 2000 and 2010—a gain barely half as great as the 4.1 million person gain of the 1990s. Migration contributed far less to the growth of rural America in the first decade of the twenty-first century than it had in the last decade of the twentieth. It did continue to account for the majority of the population gain in rural counties adjacent to metropolitan areas as well as in fast-growing recreational and retirement counties. But, even here, population gains were considerably smaller than they had been during the 1990s, because migration gains diminished. Natural increase accounted for more than half of the rural population gain between 2000 and 2010, far more than it did in the 1990s. It was especially important in remote rural areas, including those dependent on farming. In contrast, migration contributed little to the growth of these non-adjacent counties. In many rural areas, natural decrease (when deaths exceed births) is now on the rise. Natural decrease is the eventual demographic consequence of the protracted outmigration of generations of young adults from rural areas.

The analysis also emphasizes the growing importance of minorities to the demographic future of rural America. The minority population represents just 21% of the rural population, but minorities produce nearly 83% of the rural population increase between 2000 and 2010. Hispanics, in particular, represent a new source of demographic vigor in many parts of rural America, accounting for more than half of the entire rural population gain between 2000 and 2010. Young people are in the vanguard of rural America’s new diversity because the minority child population is growing and because there was an absolute decline in the non-Hispanic white youth population.

Rural America is also aging. It is already considerably older than urban America, and this aging will accelerate in the near future. The primary
driver of it is aging in place among those currently residing in rural America. This is supplemented by differential age-specific migration, which has produced a sustained outflow of younger adults from rural America and a modest net inflow of older adults into it. The aging of the Baby Boom will further swell the ranks of older adults in rural America.

These demographic changes have important policy implications. First, as rural America becomes more racially and ethnically diverse, rural institutions that serve young people—such as education and health care—will be the first to feel the impact. Such institutions are among the most expensive for local governments. Financial problems are not the only challenges rural communities face in dealing with diversity. Minorities are transforming the social fabric of many small towns, raising important policy questions (e.g., schooling, political participation, racial tensions, etc.) about their successful incorporation into American society.40 Second, age structure changes have important implications for policy-makers as well as for rural business, service, and non-profit communities. Rural America’s youngest and oldest residents are big consumers of government services such as education and health care. In contrast, the working age population provides the human capital and skilled labor force needed to fuel economic growth and provides much of the consumer base for goods and services. Thus, impending changes in the rural age structure will reverberate through the region’s government, health care, and economic sectors. Policymakers must understand the varied patterns of demographic change in rural communities and design policies that are comprehensive enough to address the multi-faceted challenges these communities face.

Population growth is slowing in rural America, but it is doing so at a highly differential rate. In remote rural agricultural areas, the population slowdown has been profound. In hundreds of these counties, more people are now dying than being born, and young adults continue to leave as they have for decades. Here, rural policy must ameliorate the adverse impacts of a diminishing population on the provision of critical services and support programs, as well as provide access to the resources (education, internet, capital, and expertise) needed to expand the local infrastructure and enhance future development opportunities.

In fast growing rural counties, policies and expertise are needed to manage growth and development. Coping with a rapid influx of people and businesses is a serious challenge that many rural governments are not fully prepared to meet. A population surge accelerates the demand for new

schools, roads, sewers, emergency services, and the myriad of other things required to support a growing population. Yet, the substantial upfront cost of improvements often exceeds the short-term revenue gains they provide, especially during a major recession that is stretching limited resources even thinner. When this is combined with declines in intergovernmental revenues due to devolution, many rural governments face serious risks of fiscal stress.\textsuperscript{41} To plan for the future, local governments need the staff, training, legal framework, and resources to produce and enforce plans that simultaneously allow growth and protect the environment, public access, open space, and farmland. Yet, rural local governments, already stretched thin by the demands of a growing population and short of revenue and expertise, are hard-pressed to develop such multi-dimensional plans. Also, the need for rural governments to cooperate at a regional level is often at odds with the fierce local independence that characterizes many rural communities.\textsuperscript{42}

Selective population deconcentration has significant environmental implications as well. In agricultural areas near sprawling metropolitan centers, development can consume thousands of acres of prime farmland, quickly making farmers a dwindling minority despite their centrality to the economy, character, and appeal of the area. Development also fragments the remaining agricultural land, making it difficult for farmers to operate efficiently. In addition, development pushes up land prices, making it difficult for new farmers to get started and for older farmers to pass on their farm to the next generation. In some agricultural areas, family farms are being replaced by large-scale meat, poultry, and dairy processors who create jobs but generate enormous amounts of concentrated wastes, which produce serious environmental hazards. Rural recreational areas endowed with natural resources including lakes, rivers, forests, and scenic views are of concern as well because they contain many environmentally sensitive areas. Population growth puts additional pressure on riparian and environmentally sensitive areas. Growing population density along the forest edge also results in a greater inter-mix of forests and people, increasing the risk of forest fires, which complicates fire suppression and makes management of the increasingly fragmented forests more challenging.\textsuperscript{43}

\begin{thebibliography}{9}
\bibitem{41} Kenneth M. Johnson et al., \textit{Local Government Fiscal Burden in Nonmetropolitan America}, 60 \textsc{Rural Soc.} 381, 381 (1995).
\bibitem{42} \textit{E.g.}, Michele Dillon, \textit{Stretching Ties: Social Capital in the Rebranding of Coos County, New Hampshire}, 27 \textsc{Carsey Inst.} 2, 3 (2011) (demonstrating such a struggle in Coos County, NH).
\bibitem{43} Miranda H. Mockrin et al., \textit{Spatial and Temporal Residential Density Patterns from 1940 to 2000 in and Around the Northern Forest of New England}, 34 \textsc{Population and Env’t} 400, 402
\end{thebibliography}
As is critical to any effort to address the policy needs of rural America deriving from the demographic change underway, there is a clear recognition that policy developed to address the needs of nonmetropolitan areas must be cognizant of the unique demographic, social, economic, geographic, and racial/ethnic diversity of the vast rural landscape. Policies appropriate to traditional agricultural communities may not work well in fast-growing recreational communities or those just beyond the urban edge. Though the Great Recession has dampened growth in such areas recently, it may well accelerate again as the recession wanes. In a similar vein, policies proposed to address the needs of America’s 100 largest metropolitan areas may not produce similar results in rural areas where distances are greater, isolation is common, and agglomeration advantages are fewer and further between. Comprehensive policies fully cognizant of the special needs of rural communities and informed by input from local rural leaders may serve to mitigate the demographic, economic, and spatial challenges that face many rural communities. Improving the opportunities, accessibility, and viability of rural areas is critical both to their 51 million residents and to the larger nation that depends on the contributions rural America makes to the material, environmental, and social well-being of the nation.

(2013); See also Volker C. Radeloff et al., Human Demographic Trends and Landscape Level Forest Management in the Northwest Wisconsin Pine Barrens, 47 FOREST SCI. 229, 238 (2001) (stating that housing density along the southern Pine Barrens may make forest management more challenging).
Figure 1.

Nonmetropolitan and Metropolitan Counties

Source: Economic Research Service, USDA
Figure 2.

Nonmetropolitan Demographic Change, 1970 to 2010

Nonmetropolitan Population Change
2000 to 2010

Figure 3.
Figure 4.

Demographic Change in Nonmetropolitan and Metropolitan Areas, 2000 to 2010
Demographic Change in Nonmetropolitan Counties, 2000 to 2012

Source: US Census Bureau, FSCPE
Analysis: K.M. Johnson
Demographic Change in New England, 2000-2010

Source: Census Bureau, FSCPE

Figure 6.
Percent Population Change in Vermont, Metropolitan Counties and Nonmetropolitan Counties, 2000 to 2012

Source: US Census, FSCPE, 2000-12
Analysis: K.M. Johnson

Figure 7.
Demographic Change by Nonmetropolitan County Type
1990-2010

1990-2000

2000-2010

Annual Percent Change

Retirement  Recreational  Manufacturing  Farming  Mining  Retirement  Recreational  Manufacturing  Farming  Mining

Population Change  Net Migration


Figure 8.
Age Structure Differences Between Nonmetropolitan Counties and U.S., 2000 and 2010

Source: Census 2000 and 2010

Figure 10.
Age Structure for Non-Metropolitan Counties, 2010

Source: U.S. Census, 2010
Analysis: K.M. Johnson

Figure 11.
Age-Specific Net Migration Rate, Non-Metropolitan, 1980-2010

Source: Winkler, et.al 2013

Figure 12.
Figure 13.

Nonmetropolitan Population and Population Change by Race and Hispanic Origin, 2000 to 2010

Source: Census 2000 and 2010

- White
- Hispanic
- Black
- Asian
- Other

Population 2010
Change 2000 to 2010
Nonmetropolitan Population by Race/Hispanic Origin, 2010

Children

- Native Peoples
- Other
- Asian
- Hispanic
- Black
- White

Total Population = 11,785,186

Adults

- Native Peoples
- Hispanic
- Asian
- Other
- Black
- White

Total Population = 39,243,706

Source: U.S. Census 2010
ASSESSING STATE POLICY LINKING DISASTER RECOVERY, SMART GROWTH, AND RESILIENCE IN VERMONT FOLLOWING TROPICAL STORM IRENE

By Gavin Smith*, Dylan Sandler**, and Mikey Goralnik***

Introduction ........................................................................................................................................... 67
Flood Hazard Vulnerability: The Past as Prelude ...................................................... 67
Vermont’s Legacy of Environmental Stewardship, Public Participation, and Limited Government ........................................................................................................................................ 68
I. Methods: Data Collection, Analysis, and Process .................................................. 70
II. Defining Disaster Recovery, Smart Growth, and Resilience ......................... 72
   A. Disaster Recovery Assistance Framework ......................................................... 76
      i. Resources Rules and Understanding of Local Needs .................................. 76
      ii. Timing of Assistance .................................................................................. 79
      iii. Horizontal and Vertical Integration ......................................................... 79
   B. State Roles in Disaster Recovery, Resilience, and Smart Growth .............. 81
III. The State of Vermont’s Proposed Policy Options .......................................... 82
   A. Take a Watershed-Based Approach to Address Development Patterns and Flood Hazard Vulnerability ............................................................... 82
   B. Create a Clear Plan of Action to Guide Pre- and Post-Disaster Decisions .................................................................................................................. 85
   C. Tackle Capacity Limits and Maximize Partnerships ..................................... 88
   D. Develop Coordinative Guidance for the use of Assistance Before and After Disasters that Advance Resilience and Smart Growth Goals ...... 90
   E. Align River Science, State Goals, and Programs that Recognize Existing and Future Settlement Patterns ................................................................. 93

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INTRODUCTION

This article describes the process used to assess state programs in Vermont and identify policy options to further the connection between disaster recovery, smart growth, and flood resilience. First, we introduce the preconditions that existed in the state prior to Tropical Storm Irene, followed by the methods used to conduct the assessment. Then we discuss the disaster recovery, smart growth, and resilience literature, including its relevance to Vermont. The review of the literature is followed by a series of proposed policy options that are supplemented by best practices identified in other states that provide insights and lessons for Vermont agency officials. The paper concludes with a set of recommendations that emphasize the need to modify existing national policy frameworks to better support state needs and capabilities.

Flood Hazard Vulnerability in Vermont: The Past as Prelude

Ten months following the devastating floods that struck Vermont in 1927, U.S. President Calvin Coolidge toured his home state to assess the progress of recovery and delivered these words in Bennington on September 21, 1928:

My fellow Vermonters:

It is gratifying to note the splendid recovery from the great catastrophe which overtook the state nearly a year ago. Transportation has been restored. The railroads are in a better condition than before. The highways are open to traffic for those who wish to travel by automobile.

I love Vermont because of her hills and valleys, her scenery and invigorating climate, but most of all because of her indomitable people. They are a race of pioneers who have almost beggared themselves to serve others. If the spirit of liberty should vanish in other parts of the Union, and support of our institutions should
languish, it could all be replenished from the generous store held by the people of the brave little state of Vermont.\(^1\)

On August 28, 2011, the rivers rose again. Tropical Storm Irene dumped four to eight inches of rain across the Green Mountain State, resulting in record-breaking flood totals in four of Vermont’s rivers.\(^2\) More than 500 miles of roads and dozens of bridges were damaged or destroyed, including many of the iconic structures that dot the landscape.\(^3\) The storm cut off a number of communities for several days and resulted in losses approximating one billion dollars.\(^4\) In the aftermath of Irene, the degree to which President Coolidge’s words ring true can be reframed as a question: Is a more resilient Vermont possible, recognizing long-standing conditions and potential post-event actions?

**Vermont’s Legacy of Environmental Stewardship, Public Participation, and Limited Government**

Disasters shine a spotlight on a range of pre-event conditions including inequitable decision-making processes, power imbalances, pre-event vulnerability, unsustainable development practices, and institutional fragmentation.\(^5\) Disasters also highlight strong inter-organizational

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5. See N. Emel Ganapati & Sukumar Ganapati, Enabling Participatory Planning After Disasters: A Case Study of the World Bank’s Housing Reconstruction in Turkey, 75 J. AM. PLAN. ASS’N 41 (2009) (discussing the inequitable outcomes of the World Bank’s disaster relief efforts in Turkey). See also HURRICANE ANDREW: ETHNICITY, GENDER, AND THE SOCIOLOGY OF DISASTERS (Walter Gillis Peacock, Betty Hearn Morrow & Hugh Gladwin eds., 1997) (examining the conditions in Miami prior to Hurricane Andrew and their effect on subsequent recovery efforts); Timothy Beatley, The Vision of Sustainable Communities, in COOPERATING WITH NATURE: CONFRONTING NATURAL HAZARDS WITH LAND-USE PLANNING FOR SUSTAINABLE COMMUNITIES 233, 237 (Raymond J. Burby, ed. 1998) (exploring extensive damages following natural disasters as an indicator of unsustainable development); Philip R. Berke, Jack Kartez & Dennis Wenger, Recovery after Disaster: Achieving Sustainable Development, Mitigation and Equity, 17 DISASTERS 93, 95 (1993) (describing impediments to disaster recovery caused by institutional fragmentation of relief efforts); Eve Passerini, Sustainability and
relationships and social capital, a strong pre-event or emergent planning culture, and high levels of self-reliance.  

In Vermont, important institutional preconditions include a history of public participation, a legacy of environmental stewardship, a commitment to farmland preservation, and a belief in limited state and local government. The flood exposed varied levels of capacity among state agencies, local governments, non-profits, and quasi-governmental organizations acting independently, and it tested the strength of bonds that span what amounts to a loosely-coupled network. Physical characteristics that have exacerbated flood hazard risk over time and represent challenges to achieving greater disaster resilience include development along highly dynamic river systems and increased growth in hillside areas.

The State of Vermont has a unique and longstanding history of growth management, environmental protection, and participatory decision-making. This history is exemplified by the Land Use and Development Act (Act 250), passed in 1970 to preserve the environmental, social, and aesthetic character of the state in the face of development pressure. In addition to environmental protections, a commitment to farmland preservation has helped maintain the agricultural sector while shielding the compact urban form of many Vermont communities from suburban and exurban sprawl. Transcending legal and policy safeguards, a land ethic persists within the state that guides many local and individual decisions to be more consistent with community and environmental values. Vermont’s rich history of public participation further contributes to a thoughtful and inclusive dialogue surrounding public policy.

Yet, despite the “indomitable people” dedicated to healthy communities and environmental protection, Tropical Storm Irene exposed significant vulnerabilities and heightened the state’s awareness of a number of preconditions affecting flood-hazard vulnerability. The degree to which these vulnerabilities trigger a desire to become more resilient in the face of

Sociology, 29 AM. SOCIOLOGIST 59 (1998) (discussing the concept of sustainability in the field of sociology).


future extreme events—including those driven by a changing climate—remains uncertain. Long-standing settlement patterns along the state’s rivers and the cumulative effect of small-scale hillside development on the edges of many communities has exacerbated stormwater runoff while increasing the exposure of structures to natural processes like riverine erosion and flash flooding. The armoring of streams and rivers and the constriction of floodplains—done in part to reduce the loss of productive farmland and protect infrastructure investments like roads and bridges—has increased the volume and velocity of floodwaters, which wreaked havoc on historic villages. Building codes, flood ordinances, and hazard mitigation plans and programs drafted to meet minimum Federal Emergency Management Administration (FEMA) requirements left many structures and communities exposed to severe flood-hazard risk.9

Additional institutional limitations were shown to hinder recovery, including inadequate state capabilities to manage the influx of federal assistance;10 challenges associated with coordinating across agencies and non-profit, quasi-governmental, and private sector organizations;11 and difficulties with implementing post-disaster policies and programs at the local level due to limited staff and largely volunteer government officials.12

At the same time, the recovery effort has uncovered opportunities to strengthen the commitment to more flood resilient practices and achieve complimentary smart growth goals. To this end, the U.S. Environmental Protection Agency (EPA) and FEMA have partnered with the State of Vermont through the Smart Growth Implementation Assistance program to help achieve these aims.13

I. METHODS: DATA COLLECTION, ANALYSIS, AND PROCESS

The acquisition and analysis of varied sources of data informed the development of policy options. Data was obtained through: 1) the review of

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10. Id. at 16.
11. Id. at 17.
12. Id. at 18.
13. In 2009, the EPA, in partnership with the State of Iowa and a number of communities, developed policy options focused on the integration of smart growth and disaster recovery following a number of floods and tornados. See Smart Growth Technical Assistance in Iowa, EPA, http://www.epa.gov/smartgrowth/iowa_techasst.htm (last updated Oct. 30, 2012) (discussing creation of smart growth policies developed by the Environmental Protection Agency and State of Iowa following a series of destructive floods).
state documents; 2) interviews with state officials; 3) the observation of public meetings held in Irene-affected towns; 4) a review of a local policy memo;14 5) written feedback on the drafts of the state policy memo from state agency officials, Mad River Valley Planning District officials,15 EPA and FEMA staff, and members of the National Hazard Mitigation Association;16 and 6) a national review of best practices.17

The research team reviewed a number of state documents including the Irene Recovery Report, the Vermont Long Range Transportation Business Plan, State Hazard Mitigation Plan, Act 250 and its technical guidance, and the 2015 Agency Strategic Plan. This information was used to gain an understanding of state policies, particularly those that address disaster recovery and smart growth. The review of the local-level policy memo allowed the research team to understand how well state policies addressed local needs, an important but often underemphasized aspect of disaster recovery.18 The varied sources of data were used to help understand the larger state and local policy milieu, gain a greater understanding of state and local capacity, and identify common themes targeting shortfalls. The analysis of the data helped uncover potentially conflicting policies that could help or hinder the state’s ability to link smart growth, disaster recovery, and resilience. The process also informed the development of interview questions that followed the document review process.

Understanding existing regulatory and legal frameworks, interagency dynamics, and the impacts of Tropical Storm Irene proved critical in the next phase of the data collection process, which involved conducting interviews with state officials. The semi-structured interview process involved key informants across six state agencies, divisions, and offices in

14. The State of Vermont, EPA, and FEMA commissioned a firm to develop a local policy memo, which describes a series of potential policies that local governments may want to consider that advance the nexus between disaster resilience and smart growth.

15. The local policy memo focused on communities located in the Mad River Valley Planning District.

16. The Natural Hazard Mitigation Association is a non-profit organization that provides a professional forum to share ideas and disseminate information, improve natural hazards awareness, conduct education and training initiatives, establish hazard mitigation as a recognized profession, and serve as a unified voice advocating for improved hazard mitigation programs and policies. See generally NAT’L HAZARD MITIGATION ASS’N, http://nhma.info (last visited Nov. 8, 2013) (providing information on the National Hazard Mitigation Association).


18. SMITH, supra note 6, at 45.
Vermont, including agency Secretaries and mid-level staff. Interviews were conducted with officials from the Vermont Agency of Natural Resources (ANR), Agency of Agriculture, Food and Markets (AAFM), Agency of Commerce and Community Development (ACCD), Agency of Transportation (VTrans), Division of Emergency Management and Homeland Security (DEMHS), and the Irene Recovery Office (IRO). Interview questions addressed the following themes: state agency involvement in flood resilience-related activities, including post-disaster disaster recovery programs; the nature of interagency coordination; the types of capacity-building initiatives present; and the manner in which state agencies collect, use, and convey information. The interviews allowed the research team to capture information across pre-identified topical areas, as well as probe issues uncovered during the discussion. Examples of information uncovered using this approach included previously unknown policies and programs and the level of coordination between state agencies and others involved in recovery, such as FEMA, non-profits, and quasi-governmental organizations.

Public meetings—facilitated by officials at the Mad River Valley Planning District—were attended in order to understand the perspectives of local officials and citizens, and to observe and document the responses of state agency officials to questions posed in these meetings. Capturing this dialogue further solidified the research team’s understanding of the degree to which existing state policies and programs addressed local needs identified during the public meetings. The transcribed proceedings were used to refine interview questions, check against the inventory of state policies and programs already identified, and develop preliminary policy options.

The review of state documents combined with the comments made by state and local officials helped shape the nature of interagency and agency-specific policy options. In order to provide an improved contextual understanding and demonstrate how similar recommendations were implemented elsewhere, analogous best practices drawn from across the country supplemented each policy option. Websites describing each of the best practices provided additional information, including background material and the means by which the policies were implemented.

II. DEFINING DISASTER RECOVERY, SMART GROWTH, AND RESILIENCE

Smith and Wenger describe disaster recovery as “the differential process of restoring, rebuilding, and reshaping the physical, social,
economic, and natural environment through pre-event planning and post-event actions.”¹⁹ This definition highlights the reality that disaster recovery involves more than the physical reconstruction of the built environment, as earlier research suggests. Nor is recovery a simple, linear process that is unilaterally applied across members of a community, as described by Haas, Kates, and Bowden.²⁰ Rather, recovery is shaped by key social, economic, and environmental dimensions, which influence the differentially distributed, temporal nature of this process among communities, institutions, households, and individuals.²¹ Drawing from the tenets of sustainable development, a number of researchers and practitioners have described aspirational recovery outcomes including interconnected social, environmental, and economic components.²² The concept of smart growth, which aims to confront the negative effects of urban sprawl, also includes a number of interrelated elements such as compact urban form leading to more walkable and less auto-dependent communities, energy-efficient design features, the protection of environmentally sensitive areas, the promotion of green infrastructure, and the placement of development along existing multi-modal transportation systems. Yet, there remains limited discussion among smart growth proponents about the nexus between smart growth and disaster resilience, although this is changing.

²⁰ MASS. INST. OF TECH., RECONSTRUCTION FOLLOWING DISASTER 261–63 (J. Eugene Haas et al. eds. 1977).
²² See WILLIAM S. BECKER & ROBERTA F. STAUFFER, REBUILDING FOR THE FUTURE: A GUIDE TO SUSTAINABLE REDEVELOPMENT FOR DISASTER-AFFECTED COMMUNITIES (1994) (discussing sustainable disaster recovery). See also Berke, Kartz & Wenger, supra note 5, at 93 (discussing the possibility of disaster recovery to help facilitate local economic and social policy objectives); CHARLES EADIE ET AL., HOLISTIC DISASTER RECOVERY: IDEAS FOR BUILDING LOCAL SUSTAINABILITY AFTER A NATURAL DISASTER (Univ. of Colo. Natural Hazards Research and Applications Info. Ctr., 2001) (outlining key components for building community sustainability following a natural disaster); GAVIN SMITH, HOLISTIC DISASTER RECOVERY: CREATING A MORE SUSTAINABLE FUTURE, 6–7 (Sept. 2004), available at http://www.training.fema.gov/eniweb/edu/sdr.asp (incorporating social, economic, and environmental components of sustainable development into the disaster recovery process); Smith & Wenger, supra note 19, at 240 (discussing the implementation of a proposed policy framework that can help achieve a sustainable recovery).
While the tenets of sustainability, disaster resilience, and smart growth share important complementary aims, the failure to plan for their integration before and after disasters can have unintended negative consequences. Several studies have shown that smart growth plans and policies can hinder the ability of communities to become more disaster resilient. For instance, the adoption of smart growth principles into disaster recovery design plans in Mississippi may have actually encouraged the reconstruction of communities in a manner that increases hazard risk. Moreover, Berke, Song, and Stevens found that New Urbanist plans did not incorporate hazard mitigation measures into their design features. In a study conducted by Chapin, Deyle, and Higgins, researchers found that varied growth scenarios, including one advancing smart growth principles (land use strategies that increase densities in existing urban core areas) actually increased hazard exposure when compared to a “resiliency scenario,” which sought to establish new core urban areas that allow for growth outside of locations prone to flooding.

In its most simple terms, the failure to connect the practice of smart growth and disaster resilience could be referred to as “smart growth in dumb locations.” The emerging concept of safe growth posits that taking action to develop land in a thoughtful way in advance of an extreme event can limit future losses while improving public safety. An integrative theme that bridges sustainable development, smart growth, and safe growth is the concept of hazard mitigation. Hazard mitigation can be defined as those actions, policies, and plans that strive to reduce the loss of life and damages to the built environment due to natural hazards and disasters. Sustainable communities, including those that embrace smart growth practices, should include actions that reduce their vulnerability to natural disasters. Such actions stand to make human settlements more enduring in the long run as disasters can disrupt the normal functioning of communities, and in extreme cases, result in permanent damage to interconnected physical, social, economic, and environmental systems.

23. SMITH, supra note 6, at 87–90.
26. Id.
Disaster resilience has gained increasing support among practitioners and hazards scholars.28 Nested within the larger sustainability paradigm, disaster resilience implies developing a system-wide adaptive capacity to rebound from a shock and return to a desirable post-event condition in an expeditious manner. This expands upon the definition of hazard mitigation as not only taking action to reduce physical vulnerability, but also as building an enhanced institutional capacity to adapt to current and future conditions, while learning from the past.29 Narrow definitions of resilience imply quickly returning to a sense of normalcy. Local officials, residents, and business owners are often consumed by the speed at which this occurs, rather than exploring options to return to a “new normal” that may include improving upon pre-event conditions that span the dimensions originally posited under the sustainability framework. For instance, improving social resilience may involve addressing pre-event conditions tied to equity and social justice, as those most vulnerable to the effects of disasters are often the poor, elderly, or those that speak English as a second language. Quickly returning to a precondition characterized as highly inequitable or vulnerable to future events is not indicative of resilience.

Social resilience implies the development of strong institutions and networks that work together collaboratively and coordinate the distribution of the resources they possess, thereby improving the speed and quality of recovery outcomes.30 Economic resilience implies the ability to rebound from economic disturbances, including shocks that affect small businesses that are often dependent on local consumers and are among the most vulnerable to the disruptive effects of disasters.31 It also implies developing


30. *See generally* SMITH, *supra* note 6 (discussing the coordination of disaster relief institutions and networks in the United States).

a more diversified economy that is able to weather volatile markets and the long-term effects of disasters. Environmental resilience means allowing natural systems, like floodplains, to express their inherent dynamism to the greatest extent possible; this implies recognizing that human settlements and associated physical alterations can impede natural systems’ abilities to absorb natural fluctuations in water flow, while still allowing them to benefit from regular change.  

A. Disaster Recovery Assistance Framework

An important part of understanding sustainability and resilience is linked to the inter-organizational and institutional nature of how groups and organizations operate. Understood relative to disaster recovery, Smith describes the “Disaster Recovery Assistance Framework” and its three defining dimensions: 1) resource rules and understanding of local needs, 2) the timing of assistance, and 3) horizontal and vertical integration.

i. Resource Rules and Understanding of Local Needs

The disaster recovery assistance network shown in Figure 1 assumes that stakeholder groups or “nodes” provide or influence the distribution of three types of resources, including funding, policy, and technical assistance. Each of these stakeholder nodes represents a simplified version of reality. For instance, “federal governments” include not only FEMA, but also Housing and Urban Development, the U.S. Army Corps of Engineers, the EPA, and many others. The graphic shows how the rules associated with the distribution of the resources stakeholders control or influence vary in terms of their prescriptiveness and the degree to which they meet local needs. The power of engaging the larger disaster recovery assistance network in purposeful planning, collaborative decision-making, and

32. The roots of resilience stem from the work of ecologist C.S. Hollings who described resilience as the “capacity of a system to absorb and utilize or even benefit from perturbations and changes that attain it, and so persist without a qualitative change in the system’s structure.” C.S. Holling, Resilience and Stability of Ecological Systems, 4 ANNUAL REV. OF ECOLOGY AND SYSTEMATICS 1, 9 (1973).
34. SMITH, supra note 6, at 13–26.
35. The assistance network shown in Figure 1, infra, is a hypothetical representation of reality. Varied network composition and node placement along the diagonal line may be found in differing geographic locations. SMITH, supra note 6, at 14.
resource distribution, undergirds many of the policy options described in this article and the State of Vermont Policy Memo.36

Collaborative planning has been shown to improve the understanding of local conditions and needs.37 Depicting this condition involves shifting the diagonal line to a vertical position whereby stakeholders possess a greater understanding of local needs but maintain the rules governing their resource distribution strategies. Continued dialogue and negotiated agreements can lead to changes in resource rules in which distribution strategies are coordinated and prescriptive rules are modified or relaxed to reflect a more flexible array of programmatic policies, referred to as the “collaborative optimization process.”38 This condition can be graphically displayed as the clustering of nodes downward along the vertical axis and to the right along the horizontal axis. Such change is difficult to achieve across all members of the assistance network in practice, due to a variety of conditions, including varied organizational cultures, entrenched bureaucracies, and poor pre-event planning.39

38. SMITH, supra note 6, at 27.
39. See id. at 26–30, 265–320 (describing how planning can lead to a transformation of the disaster recovery assistance framework).
Figure 1 includes a “zone of uncertainty” among stakeholder groups, of which we know less about their roles in recovery, as limited research has been conducted on their actions. In many ways they have been less involved, or even excluded, from participating in recovery-related policymaking and planning undertaken by federal, state, and local governments. As a result, government officials do not necessarily know how to incorporate these stakeholders and the resources they possess into formal plans, policies, and programs. The limited degree to which these groups work collaboratively with other members of the assistance network to coordinate the distribution of the three resource types (funding, policy, and technical assistance) represents an ongoing problem that merits more focused attention.

Much of the literature on disaster recovery focuses on the importance of gaining access to post-disaster funding. A review of practice also shows that state and local governments tend to focus their efforts on the

40. Id. at 14.
acquisition of financial aid in the aftermath of an extreme event, rather than investing in pre-event capacity-building initiatives, such as collaborative planning and problem-solving.\textsuperscript{42} Not only does this reactive approach to recovery overwhelm local governments when a major disaster strikes, it underemphasizes the important and complimentary resources that can shape recovery outcomes, including the development of more thoughtful policies that address identified needs and inform technical assistance strategies intended to build the collective capacity of the network.

ii. Timing of Assistance

The rapidity with which recovery occurs is a driving force for action, albeit one that can supersede the importance of post-disaster reflection and meaningful pre-event planning.\textsuperscript{43} In most cases, state and local officials are placed under tremendous pressure to act, often in order to speed the return to a sense of normalcy, even though pre-event conditions may include high levels of vulnerability to natural hazards, inequitable decision making processes, a weak economy, and poor environmental stewardship.\textsuperscript{44} The framework’s temporal dimension also refers to the degree to which members of the assistance network engage in pre-event activities in preparation for a disaster. These activities include the formation of disaster recovery committees that explore ways to better coordinate the distribution of resources and create pre-disaster recovery plans. The framework assumes that each member of the assistance network provides resources at some point in time across a larger disaster recovery continuum (e.g., before an event strikes, in the immediate aftermath, and as part of long-term recovery activities). The timing of that assistance, including the degree to which it is coordinated with others delivering their own set of resources over time, can significantly affect recovery options and outcomes. Furthermore, when the temporal distribution of resources is aggregated across the network of stakeholders, the complexity of the recovery process becomes evident.

iii. Horizontal and Vertical Integration

The concepts of horizontal and vertical integration provide useful ways to understand multi-jurisdictional decision-making, including decisions

\textsuperscript{42} See generally SMITH, supra note 6 (discussing general patterns of post disaster recovery efforts, including the obtainment of financial aid in the United States).

\textsuperscript{43} Robert B. Olshansky, Planning After Hurricane Katrina, 72 J. AM. PLAN. ASS’N 147, 148–49 (2008).

\textsuperscript{44} See generally SMITH, supra note 6 (describing patterns of post disaster recovery in the United States).
involving disaster recovery.\textsuperscript{45} Horizontal integration refers to the strength of relationships across organizations in a given area.\textsuperscript{46} Vertical integration typically describes the strength of relationships between local, state, and federal stakeholders.\textsuperscript{47} Understood relative to disaster recovery, horizontal and vertical integration also highlight relationships with external aid providers such as federal agencies, corporations, and national lending institutions. The true power of horizontal and vertical integration is achieved when both dimensions are strong and act in tandem. For instance, a small rural community may possess strong horizontal linkages between local faith-based organizations, citizens, and a local government guided by sound participatory decision-making processes. This same community may be characterized by poor vertical connectivity with state and federal government agencies and the programs and policies they employ post-disaster.\textsuperscript{48} Thus, the community may have a good understanding of local conditions and post-disaster needs but be unable to effectively navigate the multitude of recovery programs that are delivered by external stakeholder groups. Conversely, a community that possesses both strong horizontal and vertical integration tends to share information within its borders and has established relationships with state and federal stakeholders that facilitate the acquisition of resources that meet local needs. Research has shown that organizations can influence the strength of horizontal and vertical integration through capacity-building efforts including training, education, and outreach initiatives. Examples of organizations that have undertaken

\textsuperscript{45} Berke, Kartez & Wenger, supra note 5, at 100.

\textsuperscript{46} See Dylan Sandler & Gavin Smith, Assessing the Quality of State Disaster Recovery Plans: Implications for Policy and Practice, J. HOMELAND SEC. & EMERGENCY MGMT. (forthcoming 2013) (discussing that while the horizontal integration concept is typically applied at the local or community level, it has been applied across state agencies).

\textsuperscript{47} Smith expands the concept of vertical integration to include individuals and international aid organizations and nations at either ends of the spectrum. See SMITH, supra note 6 (expanding the concept of vertical integration).

\textsuperscript{48} Strong horizontal and weak vertical integration characterize many of Vermont’s small jurisdictions. For instance, several state officials described the lack of county government as a real hindrance to vertical integration, as evidenced by the difficulty of implementing federal policies at the local level, including the distribution of grants to individuals. One official noted that this lack of connectivity had the effect of limiting community resilience. State officials also noted gaps in their ability to manage federal assistance programs, build local capacity, and effectively implement post-disaster policies when federal and state rules conflict. Recognizing the gaps in horizontal and vertical integration can be used to help create new or modified state policies that are capable of addressing this void. Interviews conducted with state agency officials in Montpelier, VT (October 23–24\textsuperscript{th}, 2012). Interviews conducted with state agency officials granted on the condition that all identities remain confidential.
such efforts include quasi-governmental, non-profit, and private sector groups as well as state agencies.\(^4\)

\section*{B. State Roles in Disaster Recovery, Resilience, and Smart Growth}

While states provide an important linkage between federal and local governments, they have received less attention by researchers and policy makers in terms of the roles they play in recovery.\(^5\) States formulate policy, coordinate the delivery of federal assistance, and engage in a range of pre- and post-disaster capacity-building initiatives that target local governments.\(^6\)

At the state level, the lack of pre-event planning for post-disaster recovery remains a problem. A review of state recovery plans produced the following findings: 1) states are often ill-prepared to address the challenges associated with disaster recovery; 2) states tend to focus on the administration of federally funded post-disaster grant programs with less emphasis placed on emerging local needs and capacity-building efforts like pre-event planning for post-disaster recovery; 3) few states have developed sound recovery plans designed to foster greater horizontal and vertical integration; and 4) state plans do not include the breadth of stakeholders found in typical disaster recovery assistance networks.\(^7\) In the State of Vermont, many of the same conditions were evident following Tropical

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\(^4\) See generally SMITH, supra note 6 (describing the various institutions and organizations involved in disaster recovery).

\(^5\) See William L. Waugh, Jr. & Richard T. Sylves, The Intergovernmental Relations of Emergency Management, in Disaster Mgmt. in the U.S. and Canada: The Politics, Policymaking, Administration and Analysis of Emergency Mgmt. 46 (Richard T. Sylves & William L. Waugh, Jr. eds., 1996). See also Smith & Wenger, supra note 19, at 240 (suggesting the need for more research into federal-state and local-state coordination in recovery planning); SMITH, supra note 6 (describing the roles of different levels of government in disaster relief); Sandler & Smith, supra note 46, at 2 (describing the role of state governments in disaster recovery).

\(^6\) SMITH, supra note 6, at 45.

\(^7\) See GAVIN SMITH & VICTOR FLATT, ASSESSING THE DISASTER RECOVERY PLANNING CAPACITY OF THE STATE OF NORTH CAROLINA 1–2 (2011) (discussing inconsistency and ineffectiveness in existing state recovery plans). See generally Sandler & Smith, supra note 46 (analyzing state recovery plans). The review process found that none of the states had in place a document that could be characterized as a plan based on the plan quality literature. See Sandler & Smith, supra note 46, at 5–8 (analyzing state recovery plans). See also Philip Berke & David Godshalk, Searching for the Good Plan: A Meta-Analysis of Plan Quality Studies, 23 J. Of PLAN. LITERATURE 227 (2009) (analyzing the findings of several studies on local plan quality). Instead, states tended to maintain a collection of documents rather than an integrated decision making tool that adhered to plan quality principles. Plan quality principles include: 1) a vision and direction-setting collection of goals; 2) policies; 3) a fact base; 4) an implementation strategy; 5) a monitoring and evaluation process; 6) a means to foster inter-organizational coordination; 7) compliance with existing mandates and voluntary agreements; and 8) a method to ensure organizational clarity. See SMITH, supra note 6, at 275–92 (discussing plan quality principles as they apply to disaster recovery plans).
Storm Irene. The remainder of this paper describes a number of policy options intended to address identified weaknesses while building on enduring strengths.

III. THE STATE OF VERMONT’S PROPOSED POLICY OPTIONS

The policy options described next were developed as part of a year-long project in cooperation with state agencies, EPA, FEMA, and the Mad River Valley Planning District. Each of the policy options are framed across five themes:

1) Take a Watershed-Based Approach to Address Development Patterns and Flood Hazard Vulnerability;
2) Create a Clear Plan of Action to Guide Pre- and Post-Disaster Decisions;
3) Tackle Capacity Limits and Maximize Partnerships;
4) Develop Coordinative Guidance for the use of Assistance Before and After Disasters that Advance Resilience and Smart Growth Goals; and
5) Align River Science, State Goals, and Programs that Recognize Existing and Future Settlement Patterns.

A. Take a Watershed-Based Approach to Address Development Patterns and Flood Hazard Vulnerability

Planning at the watershed scale represents an important—albeit difficult—way to address the cumulative effects of development and associated flood hazard vulnerability. Historic settlement patterns in Vermont are characterized by relatively compact urban form adjacent to highly dynamic river systems. Gateway farms often bound these long-standing towns on either end of linear development patterns shaped by the adjacent river and steep-sloped terrain. More recent growth patterns include sprawling hillside development. The preservation of farmland, a nationally recognized practice in Vermont, can provide a tangible alternative to more intensive land uses in the floodplain that exacerbate downstream flooding. Yet the armoring of riverine shorelines in order to protect vulnerable

53. One of the problems uncovered in interviews with state and local officials involved the storage of hay bales in the floodplain. The floodwaters associated with Tropical Storm Irene washed the bales downstream where they exacerbated damages to covered bridges and obstructed the flow of water. One policy option noted in both the local and state policy memos encouraged the storage of hay bales and other potential obstructions outside of the floodplain, if practicable. Interviews with state agency officials in Montpelier, VT (Oct. 23–24th, 2012).
agricultural infrastructure and limit the loss of farmland can hinder natural processes along riparian corridors. As noted by one respondent:

Farmers have been waging skirmishes with river systems...[using] rip-rap, armoring, expanding meadows/cropland...municipalities have been doing the same...making these investments without taking into account risks...[They] have loaded the gun and cocked it with regard to risks.\textsuperscript{54}

Recommendations suggested in the state policy memo include: the adoption of a state-wide “No Adverse Impact” program; the creation of a more comprehensive fluvial erosion mapping program; and the incorporation of flood resilience measures into Act 250.\textsuperscript{55} The Association of State Floodplain Managers (ASFPM) created the “No Adverse Impact” program to address the unintended consequences of the National Flood Insurance Program (NFIP), which does not account for the cumulative effects of upstream development patterns on downstream flood hazard vulnerability. More specifically, ASFPM defines “No Adverse Impact” as actions taken at the community and individual level when:

the actions of one property owner are not allowed to adversely affect the rights of other property owners. The adverse effects or impacts can be measured in terms of increased flood peaks, increased flood stages, higher flood velocities, increased erosion and sedimentation, or other impacts the community considers important. The No Adverse Impact philosophy can shape the default management criteria: a community develops and adopts a comprehensive plan to manage development that identifies acceptable levels of impact, specifies appropriate measures to mitigate those adverse impacts, and establishes a plan for implementation. No Adverse Impact criteria can be extended to entire watersheds as a means to promote the use of regional retention/detention or other stormwater techniques to mitigate damage from increased runoff from urban areas.\textsuperscript{56}

\textsuperscript{54} Interviews with officials from Agency of Agriculture, Food and Markets officials in Montpelier, VT (Oct. 23–24th, 2012).
\textsuperscript{55} Policy Memo, supra note 9, at 18.
\textsuperscript{56} ASS’N OF STATE FLOODPLAIN MANAGERS, NAI: NO ADVERSE IMPACT FLOODPLAIN MANAGEMENT 2 (2008), available at http://www.floods.org/index.asp?menuID=349&firstlevelmenuID=187&siteID=1. The State of Ohio has incorporated “No Adverse Impact” criteria into its model floodplain management ordinance, the legal vehicle through which local governments regulate floodplain management and comply with the
The state policy memo suggests that the best way to implement a “No Adverse Impact” program is to “establish state minimum ‘No Adverse Impact’ standards that municipalities would be required to incorporate into local bylaws limiting development in flood-prone areas.” Reflecting recommendations stated at the end of this paper, this approach couples state-led capacity building initiatives with increased accountability among local governments through a gradual increase in flood resilience-related standards.

Due to the unique river systems in the state, Vermont has developed a fluvial, geomorphic-based River Corridor Planning Program. The ability to maintain and expand the state mapping of fluvial erosion provides a critical fact base upon which to assess flood risk. It also helps establish appropriate policies, plans, and programs that reflect the state’s natural hazard conditions and land development patterns, both of which are subject to change over time. In order to accomplish this objective, the state faces two principal, interrelated challenges—namely, identifying the funding needed to maintain the program, and FEMA’s unwillingness to use these maps for regulatory purposes as part of the NFIP. As noted by one state official, “[t]he classic inundation model of the national flood program is inaccurate and the methodology that goes into FEMA maps [only] works well on low gradient streams.” Because FEMA does not recognize the fluvial erosion maps as a legal basis for managing the NFIP, it does not use the maps for determining compliance of local governments or individual property owners.

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57. Policy Memo, supra note 9, at 14.
59. Interviews with officials from Agency of Natural Resources in Montpelier, VT (October 23-24th, 2012).
60. Fluvial erosion mapping has been funded under the Hazard Mitigation Grant Program (HMGP), a FEMA grant that is triggered by a federal disaster declaration. Policy Memo, supra note 9, at 26. The amount of HMGP funds a state receives is predicated on fifteen percent of total federal disaster costs. FED. EMERGENCY MGMT. AGENCY, HOLISTIC DISASTER RECOVERY: CREATING A MORE SUSTAINABLE FUTURE, (2004) 14, available at, http://training.fema.gov/EMIWeb/downloads/hdr/EMIDRTSessionXIV%20Final%2009.17.04.pdf. A policy option encourages FEMA to support the funding of fluvial erosion maps in Vermont as part of their growing Risk Mapping and Assessment Program (RISKMAP) initiative, an effort intended to improve the assessment and mapping of other hazards. Policy Memo, supra note 9, at 27. However, a
Act 250 provides an important and well-established vehicle to address watershed-level planning as it relates to increased flood hazard resilience. Among the most significant limitations, however, have been the restrictions placed on the Act through perceived violations of Criterion 1(D), which requires that qualifying subdivisions do not “result in undue water or air pollution” from sources “including stormwater…floodways, streams, [and] shorelines.” In most cases, application of this provision depends on a proposed development’s location in the floodplain, as delineated by Flood Insurance Rate Maps. However, in cases such as the Woodford Packers, Inc. appeal, the Agency of Natural Resources (“ANR”) has relied upon fluvial geomorphology to determine the flood hazard vulnerability of proposed developments. The more routine use of this approach could help foster flood resilient development while recognizing the legal limits of Act 250. This approach falls in line with emerging state policy initiatives such as Act 138, which gives ANR discretionary authority to adopt rules that exceed NFIP standards. The ability to more closely integrate state policies can be achieved through sound pre-event planning.

B. Create a Clear Plan of Action to Guide Post-Disaster Decisions

A number of state agency officials commented on how the lack of pre-event planning left them unprepared to integrate disaster resilience into post-Irene recovery and develop proactive, collaboratively derived strategies. According to one state official, “somebody needs to organize this tangled mess of resilience conversation so I have a clue what’s the order of things, what’s the map, what’s the timeline, because I am totally unprepared for the next event. And it’s not because I haven’t spent time thinking about it.” Officials from the Agency of Commerce and Community Development highlighted the benefits of a coordinative effort linking hazard mitigation plans and grant selection processes that evolved between their agency and the Division of Emergency Management and Homeland

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62 In re Woodford Packers, Inc., 830 A.2d 100, 104 (Vt. 2003).
63 Policy Memo, supra note 9, at 28.
64 Interviews with officials from Agency of Agriculture, Food and Markets in Montpelier, VT (October 23–24th, 2012).
Security after Tropical Storm Irene. However, they lamented that “none of this coordination was in place before [the event].”  

The lack of pre-event planning also hindered the state’s ability to identify unmet needs and craft a state-level recovery strategy. Similar conditions are common across the United States as post-disaster recovery is largely an ad-hoc process. As noted earlier in this paper, one of the few studies of state-level recovery plans found that many states did not effectively plan for recovery as reflected in the quality of pre-disaster recovery plans. Most states possessed a series of documents best characterized as “a descriptive collection of existing recovery programs rather than plans that lay out a vision, goals and a set of corresponding steps that should be carried out to achieve those goals.” Nor did state plans discuss policies designed to foster inter-organizational collaboration or balance competing interests. In an effort to address these concerns, a set of policy options center on recovery planning. More specifically, recommendations include: 1) move forward with the implementation of an Irene-specific recovery strategy (guided by the state’s Inter-Agency Long-Term Flood Resiliency Goals and policy options described in the state policy memo); 2) build on the process (including lessons learned following Tropical Storm Irene) to develop a comprehensive pre-event recovery plan in advance of the next disaster; 3) exercise the recovery plan over time; and 4) advocate for changes in federal policy that support the aims of Vermont to achieve the flood resiliency goals and policies described in the state policy memo and other documents. The state policy memo suggested that the development of a pre-disaster recovery plan should coincide with FEMA’s nascent National Disaster

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65. Interviews with officials from the Agency of Commerce and Community Development in Montpelier, VT (Oct. 23–24, 2012).
67. See Smith, supra note 6 (discussing the lack of state pre-disaster planning). See generally Sandler & Smith, supra note 46 (describing inadequate quality of state recovery plans).
68. See Smith, supra note 6 (discussing the lack of state pre-disaster planning). See generally Sandler & Smith, supra note 46 at 5.
Recovery Framework.\textsuperscript{73} The recent hiring of a FEMA Region 1 Federal Recovery Coordinator provides an opportunity for the state to draw from the lessons of Irene and work with FEMA and members of the larger disaster assistance network to develop a comprehensive state plan. This plan would help to influence the final makeup of federal recovery planning requirements that reflect the state’s unique conditions and needs and identify ways to build the capacity of communities to develop local recovery plans.\textsuperscript{74} Exercising these plans in advance of future disasters allows for the larger disaster recovery assistance network to assess the plans’ operational functionality and to make necessary changes based on post-exercise review.\textsuperscript{75}

As the federal recovery planning requirements are being developed, the state should advocate for changes in federal policies that advance and facilitate Vermont’s flood resiliency goals.\textsuperscript{76} Specifically, the state should support federal policies that address issues associated with “No Adverse Impact,” incorporate risk reduction measures into infrastructure repair, and make use of fluvial erosion maps in regulating floodplain development. Specific measures may include: 1) a stronger emphasis on pre-event capacity building programs, including the development of robust pre-disaster recovery plans; 2) a greater emphasis on injecting risk reduction measures into existing federal recovery policies and programs; and 3) expanding the involvement of underutilized members of the disaster assistance network.

\textsuperscript{73} Policy Memo, supra note 9 at 15. The National Disaster Recovery Framework (NDRF) is a new federal initiative required by the Post-Katrina Emergency Management Reform Act (PKEMRA). Prior to Hurricane Katrina, the federal government did not have a clear national disaster recovery strategy in place that emphasized the value of disaster recovery planning. PKEMRA represents an effort to remedy this problem. The NDRF places greater emphasis on building the capacity of federal, state, and local governments to address the issues associated with disaster recovery by encouraging states and local governments to develop pre-disaster recovery plans. FEMA is in the process of completing state and local disaster recovery guidance. Some of the still-emerging federal guidance for state-level recovery planning, which has been used by FEMA in lieu of their own materials, was created by the writers of this journal article. See GAVIN SMITH & DYLAN Sandler, U.S. DEP’T. OF HOMELAND SEC., COASTAL HAZARDS CTR. OF EXCELLENCE, UNIV. OF N.C., STATE DISASTER RECOVERY PLANNING GUIDE 6 (2012), available at http://coastalhazardscenter.org/dev/wp-content/uploads/2012/05/State-Disaster-Recovery-Planning-Guide_2012.pdf (describing state-level guidance).

\textsuperscript{74} FEMA Region 1 includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

\textsuperscript{75} While the State of Vermont held a disaster recovery exercise in 2010, it should repeat the exercise once the new NDRF-compliant state recovery plan is developed.

\textsuperscript{76} Policy Memo, supra note 9 at 15.
C. Tackle Capacity Limits and Maximize Partnerships

Interviews with agency officials and a review of post-disaster program requirements demonstrated the need to bolster the capacity of state agencies involved in recovery. In order to achieve a more fine-grained assessment of capabilities, the research team suggested that the state conduct an audit of existing programs, including the degree to which they help or hinder the ability of the state to achieve its Inter-Agency Long-Term Flood Resiliency Goals and the policy options cited in the state policy memo. The results of this assessment should be used to help frame a policy dialogue across state agencies and the larger assistance network with the ultimate aim of better understanding identified shortfalls, duplication, and policies that contradict flood resiliency goals. Based on this assessment, existing policies should be modified or eliminated and new policies developed as needed.

For instance, a number of pre-existing programs such as disaster assistance cadres, mutual aid agreements, professional emergency management accreditation programs, and collective non-profit assistance operations such as National Voluntary Organizations Active in Disaster (VOAD) tend to focus on response-oriented activities and less on disaster recovery. Other examples include comprehensive hazard mitigation plans that should be better linked to disaster recovery planning efforts. This comprehensive approach stands in contrast to disaster recovery practice in the United States, which has historically placed less emphasis on the development of integrated disaster recovery policies guided by an underlying set of goals or principles. Nor do most states or local governments effectively integrate hazard mitigation and disaster recovery

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77. Often referred to as a capability assessment, the process involves a review of existing and proposed policy options, programs, and plans, including their technical, fiscal, administrative, and political feasibility. For instance, feasibility determinations may include a review of analytical tools (technical), internal and external funding sources (fiscal), the number and qualifications of staff (administrative), and the political will necessary to adopt and implement proposed policy measures. Policy Memo, supra note 9, at 16–17.

78. The emergency management community is dominated by a response orientation, placing less emphasis on hazard mitigation and disaster recovery. For an in-depth discussion of response-oriented “collaborative operations in hazards management” that merit change in order to better address disaster recovery needs, see Smith, supra note 6, at 345–66.

79. Prior to the post-Katrina development of the National Disaster Recovery Framework, FEMA relied on the National Response Framework (NRF), which as the name implies, is focused on disaster response activities. Recovery-related activities were located in an appendix of the NRF. See generally id. (discussing FEMA’s reliance on the National Response Framework to guide federal recovery efforts prior to the development of the National Disaster Recovery Framework).
elements into state and local comprehensive planning policies, programs, and plans. 80

In the case of Vermont and its limited state-level staffing, the capacity of agencies was severely stretched following Tropical Storm Irene. 81 Not only did representatives from smaller agencies—such as Agency of Commerce and Community Development and Agency of Agriculture, Food and Markets—indicate that it was difficult to fulfill their recovery responsibilities, the Vermont Agency of Transportation, the state’s largest agency, had to employ independent contractors to complete a great deal of work, which was a process so fraught and challenging that VTrans officials referred to it as “[their] second flood.” 82

Following federally declared disasters, funds are available to hire additional state staff to assist with the administration of disaster recovery grant programs. Given the general reluctance of the State of Vermont to hire temporary staff following Tropical Storm Irene, the state policy memo suggests a “hybrid approach to increase capacity by selectively hiring additional state staff and maximizing the coordination of stakeholders across the larger Vermont Disaster Recovery Assistance Network.” 83 In order to accomplish this aim the memo suggests that the state “develop a pre-disaster personnel plan that identifies agency needs as well as those resources that can be provided by the larger assistance network, including federal and local officials, non-profits, quasi-governmental organizations, consulting firms, and those groups that emerge following disasters.” 84 The personnel plan should also include the development of “pre-disaster contracting templates and scopes of work in advance of the next disaster, expanding on the needs and issues identified following Tropical Storm Irene.” 85 These pre-event contracts should purposely target areas that


81. Low levels of state agency capacity is a widespread problem across the United States. See Smith, supra note 6 (discussing variability in state pre-disaster planning). Problems associated with variable levels of state capacity were also found in an evaluation of state hazard mitigation plans and programs. Gavin Smith, Ward Lyles, and Philip Berke. The Role of the State in Building Local Capacity and Commitment for Hazard Mitigation Planning, 31 INT’L J. MASS EMERGENCIES & DISASTERS 2, 178-203 (2013) (discussing the role of the state in enhancing local capacity and commitment to hazard mitigation planning).

82. Policy Memo, supra note 9, at 34.

83. Id. at 17.

84. Id.

existing state agencies are not equipped to address and should be codified and included in standard operating procedures. In many cases, these contracted services are eligible for reimbursement by FEMA following a federally declared disaster, and the use of pre-existing agreements can help speed the implementation of post-disaster activities. Pre-disaster contracts adopted in other states include those used to assist with debris management, infrastructure repair, grant management, and legal services.

An additional way to develop and maintain a surge capacity is to create a state-level disaster reservist cadre that is experienced in disaster recovery operations. These on-call individuals—who can be paid using federal or state post-disaster funds—are not a drain on day-to-day state resources, but rather are paid only when activated. Disaster reservist cadres may include current and retired professionals drawn from fields such as engineering, public works, land use planning, floodplain management, financial management, social services, and agricultural extension. In the aftermath of a disaster these groups can supplement local staff, assisting with grant management, permitting, building inspections, damage assessments, and repair cost estimations. Ideally, members of the disaster assistance cadre understand the important contextual issues surrounding post-disaster recovery operations including complex and bureaucratic program rules, an ability to operate in a high-paced environment, and decision-making with incomplete and rapidly changing information. Disaster assistance cadres benefit from an understanding of the overarching state goals and principles that guide recovery operations, including those that advance the integration of disaster resilience and smart growth.

D. Develop Coordinative Guidance for the use of Assistance Before and After Disasters that Advance Resilience and Smart Growth Goals

The state of Vermont created the Irene Recovery Office in order to help coordinate state agency activities and identify additional sources of funding to aid recovery. An assessment of the Irene Recovery Office showed that it


87. Policy Memo, supra note 9, at 18.
was understaffed and too focused on the review of federal programs traditionally administered by the state’s emergency management agency.\textsuperscript{88} Specific policy options suggested in the state policy memo include: “the long-term staffing of a Flood Recovery Office, expanding its duties to include the development of a State Disaster Recovery Plan, and the coordination of higher-level interagency policies.”\textsuperscript{89} While the development of state recovery offices is common following major disasters, their long-standing existence is less prevalent. The potential creation of a permanent office will need to be further explored, as Vermont has not had a series of major storms in close succession like other states in which recovery offices have endured over longer periods of time.\textsuperscript{90} In addition, the state will need to determine the location in which the disaster recovery office resides as well as its organizational structure. As noted by one state official:

There are people who see [the post-Irene condition] as an opportunity to embrace resilience. Some think the Recovery Office could become the organization responsible to lead that effort. But maybe the structure shouldn't be solely public. Maybe [the organization should be] more of a partnership that is made up of public, private, and nonprofit organizations. The capacity has to be contained within organizations that go beyond the public sector and that can be stood up quickly.\textsuperscript{91}

\textsuperscript{88} Policy Memo, supra note 9 at 19.
\textsuperscript{89} Id. at 19. If the State of Vermont decides to establish a recovery office, it will need to determine where it is housed and how its activities mesh with other state agencies, including the Division of Emergency Management and Homeland Security (DEMHS). Following Tropical Storm Irene, the DEMHS created a new section focused on disaster recovery and assumed additional responsibilities tied to the management of federal grants used to repair damaged state and local infrastructure. Options include the Governor’s Office, the DEMHS, or some form of quasi-governmental agency. For example, the Louisiana Recovery Authority is a 33-member organization responsible for the identification of post-disaster recovery resources as well as the coordination of long-term recovery activities. See LA. RECOVERY AUTH., LOUISIANA RECOVERY AUTHORITY STRATEGIC PLAN FY 2008/2009, available at http://lra.louisiana.gov/assets/docs/searchable/StrategicPlan0809.pdf (last visited Nov. 8, 2013) (describing the role of the Louisiana Recovery Authority).

\textsuperscript{90} See Andrew Nemethy, UPDATED: FEMA balks at price tag for Irene damage to state property, VTDIGGER.ORG (July 20, 2012), http://vtdigger.org/2012/07/20/fema-balks-at-price-tag-for-irene-damage-to-state-property/. The states of North Carolina and Mississippi have maintained recovery offices over long periods of time. In the case of North Carolina, which experienced the state’s two worst disasters in close succession (e.g., Hurricanes Fran (1996) and Floyd (1999)) and Mississippi, which experienced Hurricane Katrina (2005) and the BP Oil Spill (2011), both offices were still open at the time this article was published. Following Hurricane Floyd, the State of North Carolina created a three tiered disaster declaration process that codifies the conditions that trigger a number of state recovery programs, many of which are administered by the North Carolina Disaster Recovery Center. See N.C. GEN. STAT. §§ 166A-19.20–166A-19.22 (2012), available at http://www.ncga.state.nc.us/gascripts/Statutes/StatutesTOC.pl?Chapter=0166A (establishing North Carolina's tiered disaster declaration process).

\textsuperscript{91} Interviews with officials from the Irene Recovery Office in Montpelier, VT (October 23-24th, 2012).
The non-profit sector may supplement state agency efforts, as it tends to be more flexible and target needs that are not met by government organizations. The state policy memo suggests that the Vermont Community Foundation “could take the lead in working with other non-profits (including the Vermont Disaster Relief Fund), state agencies, and local officials to develop guidance focused on assisting those in need while simultaneously advancing disaster resilience goals.” The memo also recommends that “the state could work with Vermont Voluntary Organizations Active in Disaster (VOAD) to expand their coordinative role among non-profits and foundations to explore how they can play a greater role in achieving more flood resilient communities.”

Non-profits do not always coordinate their efforts with the public sector. This can lead to the unintended perpetuation of social vulnerability because non-profits often deliver assistance to low-income populations with greater speed than state and federal agencies. In some cases this can lead to the rebuilding of housing to its pre-event condition rather than in conformance with new codes and standards adopted by states and local governments during disaster recovery. On the other hand, non-profits can serve an important boundary spanning function by helping the most vulnerable groups rebuild their homes, assisting with immediate needs like temporary housing and food, advocating for needed policy change, or explaining complex federal grant programs. Recognizing the importance of the coordinated delivery of resources highlights the value of robust pre-event planning for post-disaster recovery. This is reflected in the following policy option: “[r]ecognizing that the likelihood of hiring additional staff in this economic climate is small, we suggest revisiting the specific tasks undertaken by various stakeholders following Irene, assessing gaps in the needs that remain . . . unmet, and developing a pre-disaster recovery plan

92. SMITH, supra note 6, at 127.
93. Policy Memo, supra note 9, at 19–20. Following Hurricane Katrina, the Greater New Orleans Foundation stipulated in their eligibility criteria that grant proposals must describe how an applicant’s project advances resilience. See generally GREATER NEW ORLEANS FOUND., http://www.gnof.org/nonprofits/apply_for_a_grant/ (last visited Nov. 8, 2013) (noting that post-Katrina grant applications require applicants to describe how projects promote resilience).
95. SMITH, supra note 6, at 18.
96. Id. at 127–28.
for future events that clarifies roles, reduces duplication of effort, and maximizes available resources. 97 For instance, “the Agency of Commerce and Community Development (ACCD), working with its partners, could strengthen, expand, and codify the roles of the economic development network in Vermont to include disaster resilience as part of all smart growth initiatives.” 98 This approach, undertaken by agencies and other members of the assistance network, improves the alignment of state-level programs to achieve higher order goals and may represent the first step towards creating a more flood resilient Vermont. The next section discusses the Agency of Natural Resources, a key player at the state level whose programs have the potential to shape flood resilience.

E. Align River Science, State Goals, and Programs that Recognize Existing and Future Settlement Patterns

The State of Vermont is widely recognized as a leader in floodplain management and has been able to accomplish a number of progressive initiatives in the face of limited state staffing and low levels of local government capacity. This has led to the development of state initiatives that reflect unique local conditions. The Agency of Natural Resources (“ANR”) plays a key role in linking the use of river science-based information to state-level policies and programs. Given the importance of strengthening vertical integration in recovery, strong state policy may be necessary but insufficient to address post-disaster recovery needs. As noted in the policy section titled “Create a Clear Plan of Action to Guide Pre- and Post-Disaster Decisions,” a number of state policies do not necessarily adhere to a more narrowly defined set of federal rules, including those tied to post-disaster eligibility criteria. As a result, the state policy memo recommends the following: “Incorporate ANR river standards into federal, state, and local plans and policies through coordinated policy dialogue, training, and educational initiatives.” 99 ANR standards should be integrated into state and local hazard mitigation plans, emerging local disaster recovery plans, and local comprehensive plans. One way to accomplish this

97. Policy Memo, supra note 9, at 20-21.
98. Id. at 20. Following the 2009 Iowa floods, the state created the Smart Planning Act that linked post-disaster recovery and smart growth principles through the creation of a comprehensive planning requirement that includes a natural hazards element. See generally Smart Growth Technical Assistance in Iowa, ENVTL. PROT. AGENCY, http://www.epa.gov/smartgrowth/iowa_techasst.htm (last updated Oct. 30, 2012) (discussing the creation of smart growth policies developed by the Environmental Protection Agency and the State of Iowa following a series of destructive floods).
99. Id. at 21.
aim is to “develop [a] flood resilient communities program.” This program should include a scorecard to assess the progress of communities relative to established goals, “thereby providing a tangible way to achieve monitoring and implementation procedures as required under FEMA guidance.” One of the lessons learned from Irene is the importance of improving horizontal connectivity across state programs that utilize the data and knowledge maintained by ANR. For example, ANR standards need to be better incorporated into emergency rulemaking with respect to emergency roadway repair and stream restoration granted to ANR by the state legislature. Improving horizontal connectivity also means engaging in a thoughtful policy dialogue with FEMA to explore ways to meet federal program goals—including post-disaster grant eligibility—that reflect the physical and institutional conditions found in Vermont. Achieving this aim may require negotiating an agreement with FEMA regarding the interpretation of rules that govern how damaged infrastructure is repaired relative to NFIP or fluvial erosion standards, the latter of which is a state program.

The disaster recovery literature emphasizes the importance of involving those with a sound understanding of local needs and conditions in the policymaking process. The policy memo emphasizes the need to “[c]onfirm that the process used to create and adopt River Corridor Maps, including fluvial erosion hazard areas, is state supported and actively engages local partners that have a deep, locally-grounded understanding of flood hazard risk.” The involvement of farmers, property owners, foundations, and regional planning organizations in the development and use of this information can lead to greater buy-in among those the maps affect. This would increase the likelihood of their use in hazard mitigation

100. Act 138, which was signed into law in 2012, created the Flood Resilient Communities Program, thereby enabling the state to provide funding and technical assistance to communities if they adopt higher river corridor and NFIP standards. Id. at 22.
101. Policy Memo, supra note 9, at 23.
102. See generally Smith, supra note 6, at 296–307, 328–32 (suggesting that disaster recovery is an inherently contentious process and could benefit from the use of Alternative Dispute Resolution techniques to address resource allocation conflicts).
103. See Oliver-Smith, supra note 6, at 17 (explaining that knowledge of local social and economic conditions is crucial to avoiding inequitable outcomes in disaster recovery efforts); Andrew Maskrey, Disaster Mitigation as a Crisis of Paradigms: Reconstructing After the Alto Mayo Earthquake, Peru, in DISASTERS, DEVELOPMENT, AND ENVIRONMENT 109, 122 (Ann Varley, ed. 1994) (discussing the importance of engaging local people in the post-earthquake recovery decision making process). See also Berke, Kartez and Wenger, supra note 5, at 106 (discussing the importance of strong vertical connectivity between local, state, and federal officials and strong horizontal connectivity among stakeholders at the local level). Smith, supra note 6 (emphasizing the role of local governments and organizations in the disaster recovery process).
104. Policy Memo, supra note 9, at 24.
plans, agricultural best practices, local flood damage prevention ordinances, and the acquisition of flood-prone properties.\textsuperscript{105}

Trusted members of the network should be identified and used to assist in the delivery of science-based information across broad audiences. As noted by one state official:

One of the most critical things we need to do [is] to help folks understand what are the right kinds of land use decisions they need to be making in the context of safe and smart growth and how to do that when we’re topographically challenged. The more people understand the science, the better we’re going to be. Our biggest challenge to rebuilding strong and safe is understanding and living by this science.\textsuperscript{106}

Organizations that can deliver this type of information include the Vermont Extension Service, neighborhood organizations, business leaders,\textsuperscript{107} university officials, school teachers,\textsuperscript{108} regional planning

\textsuperscript{105} Id. Following Tropical Storm Irene, the state attempted to use river corridor maps to delineate areas eligible for acquisition and relocation of flood-prone houses as part of an HMGP application. FEMA denied the project, citing the need to use existing Flood Insurance Rate Maps, which, according to state officials, underestimate the actual flood risk.

\textsuperscript{106} Id. at 25. Interviews with officials from the Agency of Commerce and Community Development in Montpelier, VT (Oct. 23–24th, 2012).

\textsuperscript{107} An important case study in which the power of negotiation, policy dialogue, and the role of the private sector as a partner in achieving more flood resilient communities can be found in the City of Charlotte and Mecklenburg County, North Carolina. Following extensive and sometimes heated debate with floodplain administrators, environmentalists, citizens, and others, developers began to recognize the cumulative effects of continued development in the floodplain, including increased flooding in many of the areas in which they had built homes and neighborhoods. Over time it became clear that developers did not want to garner the reputation as those who built flood-prone housing. As a result, it was the developers who advocated for the creation of a “future conditions” flood mapping program. This locally-funded program led to the creation of maps that depict the future breadth and depth of the floodplain assuming the watershed was built out. Based on these maps, the county began regulating development to these higher standards, which in some cases, changed the flood elevations by as much as eight feet. See SMITH, supra note 6, at 269–71 (discussing the cooperation between municipal governments and private developers to stop the construction of flood-prone housing and regulate development in flood plains). The case highlights the need to employ proven dispute resolution techniques to help address the types of issues that arise during pre- and post-disaster recovery decision-making process. See Mel Rubin, Disaster Mediation: Lessons in Conflict Coordination and Collaboration, 9 CARDOZO J. CONFLICT RESOL. 351 (2007–2008) (discussing the role of dispute resolution professionals in disaster management and recovery). See also Linda Baron, Disaster Basics: The Life Cycle of a Disaster and the Role of Conflict Resolution Professionals, 9 CARDOZO J. CONFLICT RESOL. 301 (2007–2008) (discussing the role of mediators in disaster recovery efforts). The state policy memo raises a similar point. Policy Memo, supra note 9, at 26 (discussing the importance of involving stakeholders in policy discussions surrounding river science and seeking to develop agreed upon solutions). It is suggested that the state could utilize mediators drawn from or trained by the Vermont Law School or private practice to help stakeholders engage in a productive dialogue surrounding river science, planning, and resilience. See generally Connie P. Ozawa & Lawrence Susskind, Mediating
organizations, religious leaders, and professional associations like the Vermont Floodplain Administrators and the Vermont chapter of the American Planning Association. Institutionalizing the results of protracted debate requires the incorporation of this information into policies with legal standing in Vermont that are also recognized by the larger network, such as FEMA. Specific recommendations to address this aim include:

1. Create incentives for Vermont communities to regulate land use within floodplains and mitigate hazards through a combination of:
   - Setbacks,
   - Fluvial erosion hazard overlays,
   - River corridor protection plans,
   - Best management practices, land use and hazard mitigation plans,
   - Infrastructure management initiatives, and
   - Stormwater management plans;

2. Use the Hazard Mitigation Grant Program (HMGP) to expand funding for communities to develop river corridor plans and develop strategies that recognize the natural dynamism of Vermont’s rivers;

3. ANR, the Vermont Environmental Board, and the District Environmental Commissions could encourage communities to use geomorphological, River Corridor (fluvial erosion) Maps in addition to Flood Insurance Rate Maps to review developments under Act 250; and

4. Consider the expansion of the River Corridor Easement Program through the development of a land banking or transfer of development rights (TDR) program.

CONCLUSIONS AND RECOMMENDATIONS

The State of Vermont faces a number of challenges if it is to integrate smart growth, disaster recovery, and resilience policies. These challenges

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include a public opinion that favors limited government; a highly dynamic flood hazard; historic towns and associated infrastructure located adjacent to flood-prone areas; increased hillside development; and a growing threat of hazards induced or exacerbated by climate change. The state is also characterized by a number of long-standing characteristics that can be used to confront these challenges, including a strong sense of self-reliance, a history of public participation and environmental stewardship, and a robust floodplain management program.

This article has shown that the state has an important role to play in addressing identified weaknesses and capitalizing on existing strengths by facilitating more effective involvement of a larger network of stakeholders. We suggest that the state should play a leadership role by creating the preconditions that allow collaboration to thrive across heretofore uncoordinated networks. The approach proposed in this article stands in contrast to the current federal disaster recovery policy milieu that fosters a sense of state and local dependency. In order to avoid this outcome, the state should institute a number of changes. Such changes include a sustained commitment to increasing state and local capacity; integrating hazard mitigation, disaster recovery, and comprehensive plans; a gradual shift towards greater state and local accountability; and operationalizing mature and emerging federal policy frameworks.

Build the Collective Capacity and Self-Reliance of State-Led Networks through Capability Assessments and the Modification of Policies

It is incumbent on states, working with federal agency partners, to invest more resources in pre-event capacity building initiatives while gradually holding local governments more accountable for increased standards over time. State-federal collaboration should be guided by disaster resilience and smart growth goals. A central part of this pre-event initiative should be to build the collective capacity and self-reliance of local networks, including the identification of ways that stakeholders can better coordinate resources. Specific capacity-building initiatives include the routine sharing of knowledge and skills required to improve the timely use of resources in a manner that addresses local needs while actively engaging in pre-event planning for post-disaster recovery. First, the state should conduct an assessment of existing capabilities and resources across the network. Based on this assessment, policies and plans should be modified if

110. SMITH, supra note 6, at 332–33 (describing the fostering of enhanced collaborative networks in disaster recovery).
they hinder pre-identified goals. For instance, the current one-dimensional approach to disaster assistance emphasizes the release of post-disaster funding to communities that are ill-prepared to accept and effectively manage it. Narrowly defined policies disproportionately drive the trajectory of local recovery, focusing on the physical repair of communities, often to their pre-event condition, rather than shaping outcomes that are focused on higher order goals like sustainability, resilience, and smart growth. Harnessing and coordinating the varied resources held by members of the disaster assistance network—many of whom would not initially consider themselves part of this collective body—can address many of the challenges identified in Vermont.

Further, goals advancing the nexus between disaster resilience and smart growth should be incorporated into state mandates and ongoing discussions concerning the expansion of Act 250 to better address floodplain management such as those promulgated under Act 138. Planning mandates tied to local hazard mitigation plans and the development of comprehensive plans should also serve as a venue to achieve this objective.

Integrate Local Hazard Mitigation and Disaster Recovery Plans into Pre-Existing Comprehensive Plans

It is important that increased standards and capacity-building efforts work together because local governments in Vermont are characterized by small staffs and volunteer town select boards. One way to do this is by integrating hazard mitigation plans and disaster recovery plans into existing town plans. The recent passage of Act 16—which requires the incorporation of resilience into local comprehensive plans—is representative of this type of action. However, we propose the explicit incorporation of hazard mitigation and disaster recovery planning elements into the comprehensive plan in order to achieve the aims of Act 16. The development of local recovery plans as encouraged under the National Disaster Recovery Framework should also be incorporated into local comprehensive plans. This type of plan integration will necessitate working across departments that administer hazard mitigation and disaster recovery programs within FEMA. Plan integration will also require working within and across state agencies responsible for the oversight of local hazard mitigation, disaster recovery, and comprehensive plans. In both instances,

the state should play a leadership role, ensuring that local comprehensive plans meet all federal requirements as stipulated in existing hazard mitigation and emerging disaster recovery planning rules and guidance materials. It is also crucial that the state works to ensure that these plans meet state goals linking recovery, resilience, and smart growth principles.

The fact remains that local governments are struggling to develop sound hazard mitigation plans in Vermont and across the country. A national study of local and state hazard mitigation plans found that local plans are generally weak and most do not address key elements of good planning practice. One way to help improve the quality of these local plans is through a greater commitment among states to help local governments build their capacity through improved education, outreach, and training efforts. In most states, local hazard mitigation plans tend to be developed in coordination with state emergency management agencies and their local counterparts. This has led to plans that meet minimum federal requirements but often fail to include land use planning tools and techniques.

In Vermont, regional planning districts have played an important role in the development of hazard mitigation and comprehensive plans by bringing to the table a greater understanding of the role land use plays in achieving higher levels of disaster resilience. In practice, local governments often strive to meet minimum federal mitigation planning standards, which do not require the application of land use tools and techniques as part of a comprehensive risk reduction strategy. In interviews with state agency officials, regional planning districts were routinely described as playing a valuable role in Irene recovery efforts and are representative of one organization among many that can help local governments develop better plans. Asking the regional planning districts to assist with the integration of local plans will, however, necessitate providing additional resources.

_Hold Local Governments More Accountable Over Time_

The provision of more pre-event resources should be accompanied by requirements that hold stakeholders more accountable for their actions. As

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113. Smith et al., supra note 81.


115. Interviews with state agency officials in Montpelier, VT (Oct. 23–24th, 2012).
the level of collective capacity is raised, state and local government accountability should rise as well. The adoption of higher codes and standards; the development of higher quality hazard mitigation, disaster recovery, and comprehensive plans; and a reduced emphasis on the expenditure of federal funds before and after disasters would demonstrate this greater accountability. The current system, in contrast, provides large sums of post-disaster federal assistance but does not sufficiently hold state and local governments responsible for decisions that place people and property at risk. Nor is sufficient pre-event investments made in capacity building initiatives. Combined, these actions are a recipe for disaster. Rectifying this problem requires investing federal funds well in advance of a disaster. Federal funding could be drawn from the national disaster relief fund or linked to a proposed Disaster Recovery Act that would provide funds to pay for the costs associated with this more proactive approach.116

Operationalize Mature and Emerging Federal Policy Frameworks

The power of the disaster assistance network can be further solidified through the more effective use of national policy frameworks that currently remain underutilized. The National Disaster Recovery Framework (NDRF), the Disaster Mitigation Act (DMA), and the Whole of Community concept provide three examples of federal programs that have the potential to address the issues raised here. Emerging policies tied to the NDRF should reflect a greater commitment to working with states and communities before a disaster strikes. States and communities should more effectively coordinate the collective capacity of the larger disaster recovery assistance network to improve planning capacity and recovery efforts. More specifically, this means shifting the emphasis from post-disaster recovery planning as currently practiced by FEMA, states, and many local governments, to investing the time needed to engage in pre-event training, education, and outreach programs; develop and implement plans that target identified problems; and build inclusive disaster recovery committees that coordinate the use of pre- and post-disaster resources.

The DMA requires states and communities to develop pre-disaster hazard mitigation plans in order to remain eligible for federal pre- and post-

116. The national disaster relief fund is used to pay for the costs associated with federally declared disasters, and as such, changes in this policy would require amending the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The creation of a Disaster Recovery Act was proposed by Smith and later suggested by Senator Landrieu from the State of Louisiana. The Act has not been brought to the floor for discussion in part because of the reluctance to introduce the bill during the United States economic crisis. See SMITH, supra note 6, at 321–76 (advocating for the adoption of a Disaster Recovery Act).
disaster assistance. The DMA also provides pre-event hazard mitigation funds that can be used to pay for the development of plans and the implementation of risk reduction policies and projects identified in plans. In recent years, support for the pre-disaster mitigation program has been under attack by some members of Congress who propose to reduce or eliminate the program even though the Congressionally-created Multi-Hazard Mitigation Council found a 4 to 1 return on investment on hazard mitigation projects funded by FEMA. The DMA could be strengthened by improving the quality of state and local plans. Specific areas in need of improvement include incorporation of land use strategies into local plans, integration of applicable state policies into state hazard mitigation plans, and development of improved state-level technical assistance strategies.

In an effort to encourage the greater involvement of private and non-profit sector stakeholders, FEMA has initiated the Whole of Community concept. This concept should be fully operationalized through tangible policies, such as those tied to the Disaster Mitigation Act and the National Disaster Recovery Framework. The Whole of Community concept starts to address the power of governance and should be further clarified and linked to specific pre- and post-disaster programs and policies within new and existing policy frameworks, including those that link disasters with climate change. The ability to achieve this aim must overcome existing impediments. For instance, a number of federal policies continue to run counter to the Whole of Community concept, such as those that foster a sense of state and local dependence and policies that do not reflect local needs and conditions.

Empirical evidence shows a clear link between a changing climate and an increase in the number and severity of natural hazard events. Climate change is likely to result in rising sea levels, more intense coastal storms, extreme rainfall events, an increased prevalence of drought, and extreme heat. Specific changes predicted in the New England area include more

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118. Smith et al., supra note 81; Berke, Smith, & Lyles, supra note 112 (describing state mitigation plan quality). Lyles, Berke and Smith, supra note 114 (describing local hazard mitigation planning).
extreme rainfall events, increased average temperatures, and an increased likelihood of Irene-like storms. Growing research findings and practice-based results points to the importance of better coordinating the climate change adaptation and natural hazards risk management communities.122

State-level approaches linking natural hazards risk reduction, disaster recovery, and adaptation through resilience-based initiatives have emerged in spite of no clear national policy addressing climate change adaptation. States like California and Maryland are taking the lead in adaptation efforts, while states like Florida have initiated a disaster recovery effort well in advance of National Disaster Recovery Framework guidance.

Following Tropical Storm Irene, Vermont’s state agencies have realized that climate change will exacerbate future natural hazards and disasters, and as a result, requires the maximization of existing state capabilities to address these threats as well as the formulation of new policy options that advance the power of collaborative governance. The ability of Vermont to clearly operationalize the policies described here represents the next step toward building an expanded network capable of addressing disaster recovery, resilience, smart growth, and the threats associated with a changing climate.

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CHANGING TIMES: SHIFTING RURAL LANDSCAPES

By Mark B. Lapping and Sandra L. Guay*

Introduction ........................................................................................................................................ 103
I. The National Landscape .............................................................................................................. 105
II. Northern New England .............................................................................................................. 113
Conclusion ........................................................................................................................................ 123

INTRODUCTION

As a college student Jacqueline Kennedy studied the work of Robert Frost. Later she convinced her husband that the great Yankee poet would make a fine contribution to his inauguration as President in 1961. Frost accepted the invitation and wrote a special poem for the occasion. When it came time to deliver it, the 86 year-old poet was blinded by the sun as it reflected off the snowfall that hit the nation's capital the day before. He could not read the poem he wrote for this occasion and, instead, improvised and recited from memory a poem that he wrote in 1936, "The Gift Outright." The opening lines of the short poem foretell its course:

The land was ours before we were the land's.
She was our land more than a hundred years
Before we were her people.  

While we came to possess the land, it was not until we truly settled it and gave ourselves to the land in pure "surrender" to it that our relationship to the land was American and not European. Had the poem concluded at

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2. Id.
this point it would have been one about American triumphalism, pure and simple, and certainly something fitting for a presidential inauguration in a country of constant self-congratulation and asserted exceptionalism. But Frost did not stop at that point, and instead inserted a line, set-off by parentheses, that changed it all,"(The deed of gift was many deeds of war)." The literary historian Albert J. Von Frank points out that this somewhat obscure legal term—the "deed of gift"—came to Frost from his close reading of Marlowe's "Doctor Faustus" wherein Mephistopheles tells the good Doctor that he must bequeath his soul to the Devil through a deed of gift.\(^4\) In very little text Frost's sonnet reminds us that the "gift" came at great cost, human and ecological. In more contemporary times perhaps only Wendell Berry, the agrarian essayist and poet, captures much the same intensity and ambiguity of our on-going relationship to the land as did Frost.\(^5\) Land is promise, commodity, fertility, collateral, inheritance, identity, investment, retirement account, and the very "room and situation" of our lives, as economist Jim Hite has called it.\(^6\) And, of course, it is all of these things and more, for as conservationist Peter Forbes has written, "land is life."\(^7\) The "gift" continues to define us in many ways and the "deeds of war," particularly against nature and many of our people, continues apace.

For the greatest part of our national history, the United States has been rural in both its population and its landmass. While somewhat less than twenty percent of all Americans currently live in rural areas and small towns, that population is spread across approximately ninety percent of the country's landmass.\(^8\) The rural sector is, then, dispersed very sparsely across vast areas and in many different types of settlements and communities in the open country, on the fringes of expanding metropolitan areas, and in every region of the nation.\(^9\) While it is dangerous to generalize about such a diverse and heterodox landscape, this paper will attempt to describe the national rural land base and then discuss in greater detail that part of this

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\(^9\) See Mark B. Lapping, Where Problems Persist One Sixth of the Nation is Rural—and Many Rural Residents Are Needy, PLANNING, Oct. 2007.
rural landscape in which we presently find ourselves, northern New England.

I. THE NATIONAL LANDSCAPE

The United States Department of Agriculture (USDA) has been the major federal agency historically charged with the responsibility for keeping records and statistics on land use across the nation. Its most recently released report, *Major Land Uses, 2007* provides data on the significant land uses according to 2007 data. It found that, of the approximately 2.3 billion acres of land in the county, urban land uses accounted for only three percent of the total American land mass. Rural lands, on the other hand, which consist of forest lands, grass lands and range, cropland and special use areas (wilderness, wildlife preserves, national and state parks and reserves, and other uses) accounted for nearly all of the remaining land in the country, or more than ninety percent of the American landscape. Forested lands constitute twenty-eight percent of the total, and grasslands, pasture, range, and croplands (what we tend to think of as "agricultural lands") together constitute forty-six percent of the total American land base. The USDA describes another thirteen percent as "special lands," which includes numerous types of uses from wilderness areas to defense and military bases. Alaska alone constitutes nearly fifty percent of this category. And finally, another thirteen percent of the land is categorized as "miscellaneous" land uses and is composed of wetlands, desert, tundra, and other "barren" lands, as well as rural residential land uses.

Within this land use typology, there are numerous variables that make land categorization a complex and a highly nuanced process. For example, the definition of cropland includes land actually planted in crops, like corn or soybeans; farmland used as pasture; and "idled" farmland enrolled in conservation programs like the Cropland Reserve Program ("CRP"). The distinction between some of these lands and those defined as "grassland"

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12. *Id. at v.*
13. *Id. at 34.*
14. *Id.* at 36.
that was formerly cropland and that currently has been pastured, for example, can be a fine one. Nationally cropland declined between 2002 and 2007 by 34 million acres—resulting in the lowest level of cropland since 1945—with the vast majority of the decrease explained by an increase in grassland. Some of this decrease may be understood through cycles of drought and ways in which farmers have adapted to climatic change. However, a change in the methodology used for land use categorization helps explain this statistical variation. Thus, it becomes difficult to compare land uses over time because of the growing sophistication of methodological tools utilized to delineate land use, such as GIS mapping programs and ever more accurate satellite imagery.

Keeping this in mind, it is still possible to see some remarkable differences between rural regions of the United States when it comes to how land is utilized. For example, in the "Northeastern" region—which includes all of the New England states and most of the Middle Atlantic states—cropland accounted for twelve percent of the land, while in the historical "Corn Belt"—Iowa, Missouri, Illinois, Indiana and Ohio—over half of all land, or fifty-four percent, was devoted to crops. As one might imagine, the Northeast is heavily forested compared to the Com Belt states and when we turn attention to northern New England, we are speaking about the most heavily forested states in the country. Along with the "Southeast," which the USDA defines as including the states of Georgia, Alabama, South Carolina, and Florida, the Northeast is also the most urbanized region in the nation. Thus, the Northeast combines significant forested lands and highly urbanized lands in a very interesting environmental contrast.

Within these national land classifications, there are important variations. Local or micro-level changes and influences can create subtle but truly significant developments "on the ground." For example, in Kansas a transition from wheat production to the growing of soy and corn is taking place. While this is a shift within the broad category of "cropland," the subtle but significant change that is occurring is between a dry land farming system to one that requires significant irrigation, and, this in a region which is already witnessing a profound scarcity of available water from its one dominant source, the Ogallala Aquifer. It appears that federal policy that stimulates the production of certain fuel crops for ethanol production is one of the key reasons behind this change. Perhaps this is indicative of the problem of the "unintended consequences of policy," which in addition to a shifting away from wheat production, has contributed to the rising cost of a

bushel of corn from as low as $2 in 2005, to $7.50 in 2011. Still, without getting inside the definitions employed by the USDA and other natural resource agencies, small but highly important land use changes might well be masked and go unrecognized. In a somewhat related situation, but one that the USDA land use classification scheme should eventually pick-up, there is a shift from grassland to corn and soy cropland in the western Corn Belt states. Here the problem is that highly erodible grasslands subject to soil loss and seasonal drought are moving into corn and soy production, again, for ethanol. The larger point is, that in land use policy making and planning, "the devil" is truly in the details.

Other important regional variations in rural land use are likewise detectable and indicate what is happening across the rural landscape. In a recent front-page story in its business section, the New York Times reported how Texas cattle ranchers have to adjust their modes of production as well as the number of animals they raise due to the deep drought the region is enduring. In time, this could mean a substantial change in what Texas looks like and how its rural lands contribute to its settlement patterns. Indeed, the availability of water, or the lack thereof, is coming to be one of the major drivers in land use change across much of rural America. A number of states in the nation's heartland are facing long-term, severe, and even "exceptional" drought conditions, which could well reshape both agricultural production and community survival. Parts of at least 7 states—Oklahoma, Wyoming, South Dakota, Colorado, Kansas, New Mexico, and Nebraska—have been identified by the USDA as literally "running out of water."}

18. See Christopher K. Wright & Michael C. Wimberly, Recent Land Use Change in the Western Corn Belt Threatens Grasslands and Wetlands, 110 PROCEEDINGS OF THE NAT’L ACAD. OF SCI., 4134, 4134 (Mar. 5, 2013) (discussing grassland conversion and the expansion of corn and soy into areas with high erosion risks and vulnerability to droughts).
Fertile Plains Turn to Dust," documents further the on-going problems of providing enough water to agriculture in the Plains States.\textsuperscript{22}

Not coincidentally, many of these prairie areas and Great Plains states are the subject of one of the more radical land use proposals that has appeared over the past generation, the "Buffalo Commons" scheme initially put forward by Deborah and Frank Popper.\textsuperscript{23} Looking at the long sweep of Great Plains history and especially its demography, the Poppers saw the emptying out of the region and its many communities. The Poppers essentially proposed that the persistence of out migration, a rapidly graying of remaining residents, and the decline in the capacity of local communities to provide necessary services and supports, were combining to hollow out this overwhelmingly rural region. The Poppers recommended that public policy should be directed to turning the region back into the great grassland habitat it was during the time when buffalo roamed the Plains and Native American groups followed the migration of the animals upon which they came to depend. Though initially attacked by local citizens and their government representatives and organizational leaders, it has been very difficult to argue against the future the Poppers foresaw. This is a vast region that contains a good many ghost towns, and the demographic trends appear to be conspiring against an alternative. Granted, some places of the Great Plains are witnessing growth, such as the "oil rush" population infusion in the "Bakkan" region of western North Dakota and easternmost Montana, but this is the anomaly and is due to the exploitation of new energy resources, which tend to make such places ultimately vulnerable and prone to many of the problems associated with "boom and bust" cycle economies.\textsuperscript{24} Other policy proposals, such as the "small town triage" approach that sought to focus investment and development in growth-pole communities, or service centers, which would anchor larger rural hinterland areas, were also put forward during this period.\textsuperscript{25}

Water shortages may also alter the tempo and pace of urbanization, and with that, the conversion of rural land into more urban uses. This is not only an issue in those places that are chronically drought-plagued areas, such as

\begin{itemize}
\item See Ed Kemrick, \textit{The Bakken Boom}, Oil Rush Keeps Many UM Alums Hard at Work MONTANAN (Spring 2012), available at http://www2.umt.edu/montanan/s12/The%20Bakken%20Boom.asp (emphasizing the boom and bust nature of Bakken Shale in Montana).
\end{itemize}
in the Klamath River Basin in southern Oregon, where for almost fifty years, one group of farmers and ranchers have been battling other farmer/ranchers, environmentalists, and the Klamath Indian Tribes for access to water for irrigation.\textsuperscript{26} Indeed, even the burgeoning Southeast has started to witness substantial water shortages, and the federal courts have been the stage for water resources fights between several southern states, all witnessing significant population growth and metropolitan expansion. Of note, on June 13, 2013, the U.S. Supreme Court issued its decision in \textit{Tarrant Regional Water District v. Herrmann} bringing to closure a long running dispute over water rights between the states of Oklahoma and Texas.\textsuperscript{27} \textit{Tarrant} involves an interpretation of the 1980 Red River Compact, a congressionally sanctioned agreement that apportions water from the Red River Basin between Arkansas, Louisiana, Texas, and Oklahoma. Specifically, while Oklahoma argued that under the Compact each state is entitled to take up to twenty-five percent of excess water located within that state's border, water-starved Texas claimed that the Compact authorized cross-state extraction of the excess water. Relying on its own interpretation, Oklahoma enacted laws that specifically prohibit such cross-state extraction from the portion of the Red River Basin within its borders. Initially claiming that Oklahoma's statutes violated the Commerce Clause, as it prevented unallocated water from being distributed cross-border, Texas later amended its complaint to also claim that the legislative action taken by Oklahoma to prevent cross-border access was a violation of the Compact itself.

The Supreme Court denied both of the Texas claims. On the question of state sovereignty, the Court determined that whereas disputes involving interstate compacts are determined under contract law principals,\textsuperscript{28} the intention of the parties to the Compact should control.

In considering the parties' intentions, the Court determined there were three reasons why the Compact did not create cross-border rights. First, the Red River Compact is silent with respect to cross-border diversions or a methodology by which to allocate cross-border distributions, and "[s]tates rarely relinquish their sovereign powers, so when they do we would expect a clear indication of such devolution, not inscrutable silence."\textsuperscript{29} Second, similar cross-border water rights compacts have specific language addressing allocation of diversions, and to require such allocation without

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\item \textsuperscript{27} \textit{Tarrant Regional Water District v. Herrmann}, 133 S. Ct. 2120, 2122 (2013).
\item \textsuperscript{28} \textit{Id.} at 2130.
\item \textsuperscript{29} \textit{Id.} at 2133.
\end{itemize}
\end{footnotesize}
such specific guidance "would be a jurisdictional and administrative quagmire." Third, the Court found that the parties' course of performance under the compact, specifically that Texas had earlier offered to purchase the water from Oklahoma, negated Texas' present claim that under the terms of the Compact it was entitled to the cross-border allocation without payment. With respect to the violation of Commerce Clause claim made by Texas, the Court found that there was no violation, as there was no "unallocated water" under the terms of the Compact.

*Tarrant* is both a lesson in contract drafting and negotiation, as well as a reminder that "sovereign States possess an 'absolute right to all their navigable waters and the soils under them for their own common use," and that the Court will recognize a strong presumption in a state's sacrosanct title in navigable water.

Perhaps one of the more unusual manifestations of the battle for interstate water rights is a recent resolution passed in the Senate of Georgia, following the passage of a similar resolution by the Georgia House of Representatives, calling for a change in the state's boundary line with Tennessee. Claiming that a two hundred year old border dispute must be redressed through a slight alteration of its northern border, Georgia is seeking to bring a very small portion of the Tennessee River under its jurisdiction, so as to allow it to tap the river's waters for the growing north Georgia region that includes parts of Metro Atlanta. If an agreement with Tennessee cannot be amicably reached, the legislature directs the Georgia Attorney General to sue Tennessee in the federal courts. In this region, then, rural waters and lands are seen as key to the future growth of a major metropolitan area.

Other even more subtle changes are occurring in the broad categories the USDA lays out that require some comment. For example, a recently released U.S. Forest Service report indicates that with changes in the climate, tree species composition in northern Wisconsin, the geographic area of the research study, is beginning to change. Along with this, both wildlife and fisheries habitat will also be altered, and a local economy based on timber harvesting, hunting and fishing, and tourism may also be affected. As the study concludes:

30. *Id. at 2134.*
31. *Id. at 2123* (citing Martin v. Lessee of Waddell, 16 Pet. 367, 410, 10 L.Ed. 997 (1842)).
33. *Id.*
"Forest managers in northern Wisconsin need to establish clear goals for adaptation, mitigation, and monitoring and make sure these are articulated and integrated. Ecological, social, and economic goals will need to be weighed, and mitigation will have to be balanced with adaptation."

New Englanders have been warned that with climate change they stand to lose the region's maple syrup industry due to increases in temperature and changes in rainfall amounts. It has been estimated that if the northeast climate warms as now projected, the U.S. maple industry "will become economically untenable during the next 50-100 years." In terms of species composition in the northeast, it is expected that warming temperatures in the ensuing 50-100 years will alter the present northern hardwood dominated forests in a manner that will have "profound implications on the character and economy of New England and New York."

Yet, another recently released U.S. Forest Service study suggests that there is "no consistent pattern of climate-related species movement in either elevation or latitude" in the White Mountains of New Hampshire and adjacent lands in Maine other than that brought about by "natural succession." Some emerging evidence strongly suggests that changes in fisheries, wildlife, and bird habitats have already taken place and will likely increase over time due to changes in the climate. What we can discern from this is the climate science is rather young in its sophistication but that, again, changes within rural land use categories may be as significant as changes between them. This information, however, can only be obtained through local studies and analysis.

As a USDA report concludes, "many factors impact land uses, including policy, socioeconomic, and environmental factors. Identifying

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37. Id.
which factors make the most significant impact is challenging because data are not always available at the same spatial or temporal scale.\textsuperscript{41}

In addition to land use information, the USDA study also provides some data on land ownership and tenure. By far the largest percentage of American land, fully sixty percent, is privately owned. The remainder is owned by various governmental entities, with federal ownerships accounting for almost thirty percent of the total, and the remainder in state or local ownerships.

Federal land ownership is hardly uniform across the nation. Such lands vary from approximately three percent in Connecticut to slightly more than eighty percent in Nevada.\textsuperscript{42} Indeed, federal ownerships are especially concentrated in the West, and for a long time these lands have been the target of the "sagebrush rebellion" that continues to push for the transfer of ownership either to state governments or the private sector.\textsuperscript{43} As one might imagine, how federal resource agencies manage and regulate land uses on federal lands in the American West has a profound impact on local rural economies and communities. Issues over grazing rights, timber sales, forest fire suppression, and water allocation are often seen as "life or death" decisions for rural Westerners.

As with the land use categories themselves, the definitions of ownership or tenure types are broadly defined and are also subject to nuance. Land tenure is often a difficult issue to raise in the United States because we are so wedded to the notion that the marketplace is the final and most appropriate mechanism to affix property rights and obligations. Concerns over how land is used will invariably raise the matter of who ought to own the land and how lands owned by the public should be managed. Private ownerships range from corporate to individually owned parcels, and much in between. Some family farms are actually owned by family corporations, while the majority are still single proprietorships. In some jurisdictions, controls have been placed on the amount of land that corporations can control. Recently, the Governor of Kansas has sought to loosen restrictions on just how much land a corporation may own in his state. While the issue has been put aside for further study, it has split major farm organizations, some of which see greater corporate control of the land

\textsuperscript{41} Nickerson et al., supra note 11, at 41.
\textsuperscript{42} Ross W. Gorte et al., Cong. Research Serv., R42346, Federal Land Ownership: Overview and Data 3 (2012).
\textsuperscript{43} E.g., William L. Graf, Wilderness Preservation and the Sagebrush Rebellions 15 (1990) (highlighting the federal government’s role in administering wilderness lands in the American West).
as dangerous for agriculture. The federal government also monitors foreign ownership of agricultural land through the Agricultural Foreign Investment Disclosure Act ("AFIDA") of 1978.

Currently, there is little concern over foreign ownership of agricultural land in the United States. Having said this, growing international unease over "land grabs" may well make this an issue in the future, as pressure continues to mount on the world's ability to provide food security for an ever-growing population.

One of the more interesting developments in American land tenure that has evolved over the past several decades has been the rise of land trusts, organizations like the Vermont Land Trust. Such entities have gained traction across the country, and it is now estimated that in combination with local governmental purchases of conservation easements, approximately 5 million acres of active farm and ranch lands have been protected from development through trusts.

II. NORTHERN NEW ENGLAND

More than one wise wag has suggested that had the United States been settled from the West to the East, as opposed to the way it was, New England would have remained a wilderness area. Compared to other sections of the nation, this region's lack of easily exploitable natural resources would have made it largely unattractive to settlers and development. If this were the case for New England as a whole, it is even more so with the northern New England states of Vermont, New Hampshire, and Maine. Indeed, much of the land use story of the last century or so in northern New England has been the return of the land to the forest. Though the "hill farms" went first, agriculture in general has been a declining land use from a time, not that long ago, when it shaped both the landscape and community life throughout the region. Currently Maine is approximately ninety percent forest covered, and it is followed very closely by New Hampshire at better than eight-four percent forest covered. Vermont is more than eighty percent in forestland use, an environmental

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juxtaposition from its situation over a century ago when it was eighty percent cleared for farming. Taken together, northern New England is the single most heavily forested region in the nation.48

While the second most forested state in New England, New Hampshire has witnessed a decline of approximately 125,000 acres in its forestland base over the past several decades. Its forested area currently approximates what existed in the late 1940s.49 As with New Hampshire farmland, which has also declined in amount, the reduction in forestlands is largely due to the growth in population that the state has witnessed. For the last four decades or so, New Hampshire's population has grown at a rate greater than any other New England or northeastern state. Indeed at approximately 1.2 million people, New Hampshire's population has essentially doubled since 1960, and much of this growth has taken place on previously farmed and forested lands.50 The state still maintains a substantial publicly owned forest of 1 million acres, much of it in the White Mountains National Forest (‘‘WMNF’’).51

The year of 2011-12 marked the centennial of the passage of the Weeks Act by the U.S. Congress.52 Its importance to the New Hampshire forest, and later to Vermont's as well, cannot be discounted. Named after a Massachusetts congressman, John Weeks, who long championed the cause of forest conservation and public land ownership, the Weeks Act provided funding and authorized the federal purchase of forestlands for the creation of national forests east of the Mississippi.53 The WMNF was one of the first national forests to be created in this way. It is no exaggeration to say that New Hampshire was the epicenter of forestland conservation in the eastern United States. Concern over the rapacious over-cutting of forestlands, forest fires, and soil erosion also led to the establishment of the Society for the Protection of the New Hampshire Forest several years prior to the passage of the Weeks Act. Along with other individuals and groups, the Society


agitated for the creation of the WMNF, and it remains today one of the nation's foremost environmental organizations.\textsuperscript{54}

As in New Hampshire, Vermont's Green Mountain National Forest, which is composed of the mountainous spine of the Green Mountains chain, was also created out of cut-over lands that were initially cleared for timber and then settled as farms. The GMNF came into being in 1932 during the Great Depression, when the federal government was able to purchase some acreage for as little as two cents a piece. As in the case of the WMNF and other Eastern national forests, the GMNF was preeminently a watershed protection project and currently contains over 400,000 acres.\textsuperscript{55} Vermont owns an additional 300,000 acres in state forests, preserves, and parks.\textsuperscript{56} Along with these public lands, the state includes hundreds of thousands of acres of privately owned forest lands.\textsuperscript{57} Most of these lands are held for residential, second home, or recreational uses, where timber management practices are seldom a priority. And like neighboring New Hampshire, the species composition of the Vermont forest is not very diverse, consisting basically of maple, spruce, hemlock, fir, and birch.\textsuperscript{58}

To many people, Maine remains the forest primeval. Or at least it looks that way. Cut over many times for timber and pulp and paper making, there really are two Maine forests, one in the more populous and growing south, and the great Maine North Woods. In terms of its composition, the Spruce Budworm outbreak of the 1960s and 70s played a major role in the decline of softwood timber and a corresponding increase in the state's hardwood inventory. Forestland in the southern counties of Maine—York, Cumberland, parts of Oxford, and Sagadahoc—has been on the decline, and this loss is closely related to a relatively new phenomenon, forest fragmentation and parcelization.\textsuperscript{59} Fragmentation has been the subject of a major study in New Hampshire, too, though it is hardly a New England
issue alone. Fragmentation, especially on the urban-rural fringe, is becoming a major land use issue nationally. Fragmentation occurs when large blocks of forestland are subdivided in anticipation of the sale of lots for development. As one U.S. Forest Service study in New England has described it:

[forest fragments have been compared to oceanic islands, with rates of species extinction and decolonization related to woodlot 'island' size and nearness to larger woodlands. The paradigm may have some utility in describing effects on forest lands where the landscape consists of scattered woodlots separated by non-forest land uses such as agriculture or urban development.]

Beyond the ecological effects of forest fragmentation—such as the creation of "genetic bottlenecks"—and some public health concerns—as in the spread of Lyme Disease, as habitat disruption has created many new deer yards in urbanizing and rural sprawl areas—industry and jobs may be threatened as well. This is the case with the white-pine lumber industry in southern Maine, where forest fragmentation has gradually whittled away at the region's long-term supply of this valuable species.

Since the time of Thoreau, Maine's North Woods has been the subject of writers, poets, loggers, painters, speculators, conservationists, politicians, and almost everybody in between. This is not the place for a protracted discussion on either the status of or the future of this huge forested landscape. Suffice it to say that when Governor Percival P. Baxter purchased and put aside thousands of acres in and around Mt. Katahdin in 1930, he set in place a recognition that the forest and waters of northern Maine were special and that the forces of the market had to be restrained through careful planning and management. After his death, the Baxter family gave what would become known as Baxter State Park to the people.

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64. **Tom Bell, Threats to Timberlands, ME. Sunday Telegram, Dec. 1, 2002, at 1A-6A.**
of Maine to be managed "forever wild" as the Governor wished. Since that
time, the Park has expanded through strategic acquisitions, and it now
constitutes one of the largest intact pieces of forest wilderness in the East.66
One contemporary issue illustrates the nature of some of the problems
confronting the Great Woods.

In 2005, the Plum Creek Timber Company of Seattle ("Plum Creek")
proposed to the Maine Land Use Regulation Commission ("LURC")67 a
massive housing development proposal encompassing twenty-six minor
civil divisions in Somerset and Piscataquis Counties, and surrounding
almost all of Moosehead Lake.68 With its proposal to rezone approximately
408,000 acres, the Plum Creek development was to that time, and since, the
largest single development ever proposed in Maine.69 Slated for the
Moosehead region, the development scheme included nearly one thousand
housing units, a golf course, a marina, several rental cabins, services, such
as a gas station and a general store, and several RV parks—all in a largely
undeveloped part of the Maine North Woods. In 2007, following a great
deal of public outcry, as well as some significant local support in the
region, Plum Creek revised its proposal. The revision called for relocating
several of the proposed house lots away from the shorefront, but increasing
development of house lots inland and increasing the size of a resort on Big
Moose Mountain outside of Greenville from 500 to 800 units, including
hotel rooms, suites and house lots.70 In addition, the revised plan called for
ninety-six percent of the land (392,500 acres) to remain under permanent
conservation, thereby restricting development to the remaining four
percent.71 Between 2007 and 2008, LURC held hearings on the proposed
amended plan "involving 300 hours of hearings, millions of dollars in legal
fees, and testimony from thousands of citizens," closing the public hearings

66. ANDREW M. BARTON ET AL., THE CHANGING NATURE OF THE MAIN WOODS 125
(2012).
Maine Land Use Regulation Commission (LURC) as the Land Use Planning Commission (LUPC));
68. Kevin Miller, Plum Creek Development Gets OK from State Supreme Court, BANGOR
69. Plum Creek's Plans for Maine's Moosehead Lake Region: The Facts and the Fine
Print, NATURAL RES. COUNCIL OF ME., http://www.nrcm.org/plumcreekfacts.asp (last visited Sept. 20,
2013).
70. Kevin Miller, Plum Creek Revises Moosehead Plan Developer Proposes Fewer
Shorefront Houses, Larger Resorts, BANGOR DAILY NEWS (Apr. 28, 2007),
71. OSI's Plum Creek Analysis is Lauded, OPEN SPACE INST. (Oct. 6, 2009),
http://www.osiny.org/site/PageServer?pagename=Program_Institute_LandUseProjects_PlumCreek&pri
ter_friendly=1.
on January 25, 2008. After it had closed the public review process, LURC staff developed proposed amendments to the Plum Creek proposal, so the plan would meet regulatory requirements. Although LURC kept the record open for written public comment while deliberating on these amendments, the Commission did not hold a public evidentiary hearing prior to approving the final, revised plan on September 23, 2009.

Both the Forest Ecology Network (“FEC”) and the Natural Resources Council of Maine (“NRCM”) immediately appealed the Commission's decision to the Superior Court, which consolidated the appeals. In part, the appealing parties claimed that LURC should have taken an "up or down" vote on Plum Creek's application after its final public hearing but instead had improperly amended Plum Creek's petition post-public hearing; or in the alternative, if the plan was to be amended, LURC should have reopened the public hearing period. The Superior Court (Business and Consumer Docket) agreed, finding that LURC had "disregarded its Chapter 5 rules and engaged in an unauthorized, ad hoc procedure that prejudiced Petitioner's rights." As a result, the Superior Court vacated LURC's approval of the Plum Creek Plan and remanded the matter back to LURC to correct its procedural errors.

Plum Creek, LURC, and others, appealed the court's vacation order to the Maine Supreme Judicial Court. In March 2012, the Supreme Judicial Court overturned the lower court's decision, finding, in part, that LURC was not required to take an "up or down" vote after closing the public hearing; and further, that LURC was entitled to amend the proposed Plum Creek plan prior to approval without an evidentiary hearing. While the thirty-year development plan is still years away, as a part of that final approval, in May 2012, Plum Creek conveyed a 363,000 acre easement to the Nature Conservancy that bans development and limits logging, while allowing public recreational access.

What is significant here, other than the conflict between preservation and development in a relatively undeveloped and poor rural region, is the fact that increasingly the Maine woods are no longer owned by paper and

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72. Miller, supra note 68.
78. Id.
These businesses are gradually divesting themselves of their forest properties, and their lands are being purchased by relatively new actors in the forest land market, namely timber investment management organizations ("TIMOs") and real estate investment trusts ("REITs"), both the results of changes in federal tax policy. Concern over this change in land ownership, and in particular the sale by Diamond International Corporation of 790,000 acres of the Maine forest to a French conglomerate that proceeded to subdivide the land into parcels for rapid sales, led Congress to establish the Northern Forest Lands Commission. In retrospect, according to several analysts:

the Diamond International sale was the beginning of a process of divestiture of timbers by Maine paper companies that has continued to this day. After nearly a century of profiting from vertical integration, new global realities changed the game: now the parts of a paper company (timberlands, mills, power-generating dams) sold separately were worth more than the whole... This has led to a shift in timberland ownership from industrial to investment owners.

By 2009, forest product firm ownership had declined to approximately fifteen percent of the land, while that controlled by TIMOs and REITS has totaled almost sixty percent. For TIMOs and REITS, forestland is no longer managed for long-term returns as part of a larger and more strategic business model. Rather, these investor organizations look for short-term investment returns with shareholders who require high returns in a relatively truncated period of time. Much forestland is purchased in a piecemeal fashion and is heavily cut—through what are called "liquidation harvest"—and then the land is often subdivided and resold for development purchases. In Maine, this often translated itself in the creation of "Kingdom Lots," very large properties, sometimes tens of thousands of

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79. See JOHN HAGAN ET AL., CHANGING TIMBERLAND OWNERSHIP IN THE NORTHERN FOREST AND IMPLICATIONS FOR BIODIVERSITY 10 (2005) (pointing out that between 1994 and 2005 large timber tract ownership shifted from being 60% forest industry owned and 3% investor-owned to 15.5% and roughly 33.3%, respectively).
82. BARTON ET AL., supra note 66, at 128.
83. Id. at 208.
84. Id.
acres,\textsuperscript{86} often located on ponds and lakes and where the land is used for vacation homes and other non-timber purposes. The paper industry and other wood product firms now own only a small portion of the Great Maine Woods and uncertainty about the future of the resource is now the norm.\textsuperscript{87} Traditional uses, well-paying jobs, and public access on paper company lands, long the norms in this part of Maine, are already in decline. Between the years 1990 and 2004, there has been a loss of more than 9,000 jobs from Maine's forest industries and the remaining jobs may be "liquidated" over time too.\textsuperscript{88}

The pressure for shifting land use priorities in northern Maine is not just coming from outside investors, however. Since 2011, when Paul R. LePage became Maine's seventy-fourth Governor, and particularly during the first two years of LePage's administration, when he had the support of a Republican majority in the Maine Legislature, there have been several significant legislative changes affecting the Great North Woods.\textsuperscript{89} One example, noted above, is the evolution from the Land Use Regulatory Commission ("LURC") to the Land Use Planning Commission ("LUPC"). Initially introduced by the LePage administration as an effort to abolish LURC entirely, the final legislation kept a Commission in place, however significantly altered its scope and authority in the state's northern unorganized and deorganized territories. Unlike LURC, LUPC no longer oversees forestry permitting, now regulated by the Maine Department of Environmental Protection's ("MDEP") Bureau of Forestry.\textsuperscript{90} Perhaps even more significantly, the Commission has been stripped of its prior oversight authority for statutorily defined environmentally significant developments such as mineral, gas or oil exploration, mining or production, and most developments of twenty acres or greater (such as the Plum Creek development).\textsuperscript{91} Also, no longer under the Commission's jurisdiction are grid-scale wind energy developments. Redesigned as more of a prospective zoning and development authority, LUPC has been tasked with preparation

\textsuperscript{86} Jeff Pidot et al., Natural Res. Counsel of Me., Maine's North Woods: Changes, Challenges and Options to Protect Maine's Heritage 12.
\textsuperscript{87} Mike LeVert et al., Are the Economics of a Sustainable Maine Forest Sustainable?, 12 Me. Pol'y Rev., 25, 27–28 (2007).
of a comprehensive plan for the unorganized and deorganized territories, and to assist in regional planning efforts.

Another noteworthy change brought about by the LePage administration occurred on July 1, 2012 with, after more than forty years of service to the State, the elimination of the Maine State Planning Office ("SPO"). Since its inception in 1968, the role of the SPO was to assist the governor's office and the numerous towns and regions within the state by providing such services as technical assistance, code officer training, economic forecasting and unbiased policy analysis. These services were performed through the SPO by the Office's ongoing coordination of various resources and agencies involved both in significant statewide projects, and in the more localized planning efforts of towns and municipalities throughout the state. With the recent dismantling of the SPO, these services, where still provided, are no longer coordinated by one office but rather have been decentralized and scattered amongst several other state agencies, such as the Office of Policy and Management, Department of Agriculture, Conservation and Forestry, and the Governor's own Energy Office.

Even with the increasing stress on the Great North Woods, the long decline of agriculture, and with it pasture and grasslands, crop lands, and open spaces, seems to have come to a halt, or at least the pace of decline in the amount of land in agriculture has slowed in the region. Indeed, the number of farms has increased significantly in Maine, for example, though the size of the average Maine farm has declined. There are, then, more but smaller farms in Maine than in years past. In New Hampshire, the decline in farm acreage also seems to have ebbed and the average size of a farm in the Granite State has actually increased. The situation in Vermont is complicated by the fact that there had been an increase in the number of farms in the early 2000s, but at the same time a decline in the number of dairy farms, which have traditionally defined Vermont agriculture and

92. ME. STATE PLANNING OFFICE, supra note 89.
94. ME. STATE PLANNING OFFICE, supra note 89.
much of the state's landscape.\textsuperscript{97} The average size of the Vermont farm has stayed relatively stable over the last decade or so. Still, dairying remains the anchor of the commercial agricultural sector and represents the vast majority of the state's cash receipts from farming.\textsuperscript{98}

These statistical realities fail to explain the growth in some parts of the region of agricultural enterprises, organic and specialty production, and the growth in the number of community supported agricultural operations and farmers' markets. Both Maine and New Hampshire are in the process of developing local food strategies and plans while Vermont implements its "Farm to Plate" strategy. Vermont's approach may emerge, perhaps curiously, as one of the most important developments in land use policy in the state's recent history. As throughout New England, the average age of the Vermont farmer is rising, and many will retire in the next decade. This invariably raises concerns over the future of the farmland base, since the sole proprietorship or family farm remains the backbone of the farming community in all three northern New England states.

Some land use issues tend to be idiosyncratic to each New England State, such as Maine's attempt to preserve its "working waterfronts."\textsuperscript{99} Other land use problems in northern New England, such as sprawl, transportation, downtown renewal, and control over shoreline development are ubiquitous across state boundaries. One issue of both state and regional concern is the siting of energy facilities and transmission corridors, such as the controversial Northern Pass project. The Northern Pass project, a collaboration between two affiliated stateside utilities\textsuperscript{100} and Hydro-Quebec, is a proposal to transport "up to 1,200 megawatts of hydropower from Canada to the New England power grid."\textsuperscript{101} In order to transport this power supply, the plan calls for turning 180 miles of power lines, with towers ranging from 85 to 135 feet, from the Canadian border, through northern New Hampshire and the White Mountain National Forrest.

\textsuperscript{98} USDS, supra note 97 at 9.
\textsuperscript{100} See THE ISLAND INSTITUTE, supra note 99. (explaining the inclusion of Northeast Utilities and NSTAR in the partnership).
eventually terminating in southeastern New Hampshire. In addition to very vocal resistance from groups such as the Society for the Protection of New Hampshire Forests to the project's plan to build its transmission lines across the Appalachian trail and other remote hiking areas, through wildlife habitat and wetlands, and significantly, through approximately ten miles of New Hampshire's national treasure, the majestic White Mountain range, the plan is facing major local resistance at the local level, where the use of eminent domain has thus far unsuccessfully been lobbied by the developer for forty miles of the project where there currently is no existing transmission corridor.

CONCLUSION

While land use in New England has historically evolved slowly and over time, many now see the region's Great North Woods, panoramic pasturelands, working landscape, and rural way of life as being at a crossroads. Driven by tough economic times and shifts in population brought on by loss of forestry and manufacturing jobs, resource rich but financially strapped rural communities are fighting the battle of Kingdom Lots and shrinking agricultural land. As Frost informed us "[t]he deed of gift was many deeds of war" and the battle to save the Northeast's vast rural lands from destruction through attrition has only just begun.

102. Id.
104. See MARK B. LAPPING, Toward a Working Rural Landscape, in NEW ENGLAND PROSPECTS: CRITICAL CHOICES IN A TIME OF CHANGE 59, 59 (Carl H. Reidel ed. 1982).
105. Frost, supra note 3.
INTRODUCTION

Over the last fifty years, millions of acres of rural land in America have been overtaken by low-density residential development (homes on 2 to 160 acre parcels). This exurban development is profoundly damaging to natural resources and systems and removes most of these lands from the land base needed to grow crops, livestock, and commercial wood fiber. Over the last five decades, states and local governments have adopted different methods for protecting rural lands from low-density residential development. Politically acceptable programs of public acquisition, conservation easements, transferable development rights, and residential clustering regulations have been essential to protecting rural lands in many states and regions. But the cost of these systems means they can preserve only small percentages of rural lands. Rural zoning programs have protected millions of acres of land, but are politically contentious and therefore unattractive to many elected officials in other states and governments. They are also at risk of legislative weakening or repeal. The author believes a blending of
regulatory and non-regulatory approaches might make it possible to protect millions more acres from exurban residential sprawl.

I. AMERICA’S RURAL RESOURCES LANDS ARE BEING PROFOUNDLY DAMAGED BY VERY LOW-DENSITY RURAL RESIDENTIAL SPRAWL

The march of urban development (residential subdivisions, office and industrial parks, shopping malls, etc.) across farmland, forestland, rangeland, deserts, and natural areas is well known and dramatic. It may not be a perennial concern, but it is certainly a periodic concern for the public and policy makers.

But a far bigger area of America’s precious rural resource lands—the rural lands used for producing food and fiber and the natural areas that are our reservoirs of biodiversity—has been, and continues to be profoundly affected by very low-density residential development and the associated growth in the network of rural roads.

This scattering of new homes on 5-, 10-, 40-, or 160-acre parcels and the roads serving them is sometimes referred to as “exurban sprawl.”1 Because this scattered home-site development can blend into the landscape, it can pass almost unnoticed. However, its scale and the impacts caused by this change in the ownership and use of the land are profound.

The share of growth that has occurred at very low densities around metropolitan areas is substantial. Dr. Arthur C. Nelson and Dr. Thomas Sanchez studied urban, suburban, and exurban residential growth patterns in thirty-five metropolitan areas between 1990 and 2000. They found that the expansion of exurban development far exceeded the rate of urban and suburban development and indeed found that in the 1990s “exurbia now dominates American growth.”2

For example, between 1990 and 2000, the population of the Charlotte, North Carolina metropolitan region increased by twenty-nine percent.3


2. See Arthur C. Nelson & Thomas W. Sanchez, The Effectiveness of Urban Containment Regimes in Reducing Exurban Sprawl, 160 DISP. 42, 42–43 (2005) (defining “exurban” residential density as Census tracts with 300 to 999 people per square mile; higher densities were “suburban” and “urban” and tracts with lower densities were classified as “rural.” An “exurban” density of 999 people per square mile translates into about 400 homes per square mile or about 1.6 acres per homesite assuming 2.5 persons per household and at 300 people per square mile translates into 120 homes or about 5.3 acres per homesite. But cf. THEOBALD, supra note 1, at 2.

Nelson and Sanchez found that one-half of that growth occurred at suburban densities, but fully forty-five percent occurred at exurban densities. The amount of land in exurban densities increased by 265.7 square miles, far eclipsing the 101.2 square miles of expansion in urban and suburban densities. For example, in greater metropolitan Columbus, Ohio between 1990 and 2000, twenty-five percent of the growth occurred at exurban densities, and used 58.5 square miles. Whereas, seventy-five percent of the growth occurred at urban and suburban densities using only 65.7 square miles.

In 2000, there were 48,544 square miles in urban and suburban residential densities (0 to 1.7 acres per housing unit) in the coterminous forty-eight states. This is an area the size of North Carolina. By comparison, there were 354,090 square miles in residential densities of one house for every 1.7 to 41.5 acres. That is an area as large as Texas, New York, and Pennsylvania combined.

Based on model forecasts developed by Dr. Dave Theobald at Colorado State University, areas of urban and suburban “housing densities will expand to 2.2% [of the land area of the 48 coterminous states] by 2020, whereas exurban [development] will expand to [cover] 14.3%.”

Exurban sprawl has different forms and different causes. Its primary form is rural home site development created for people whose work and social relationships are in a nearby city or town. Rather than a half-acre or one-acre lot in a suburban subdivision, a person or family buys a ten, twenty, or forty-acre “rural estate,” “hobby farm,” or “ranchette.”

5. Id.
6. Id. at 15.
7. Id.
10. Theobald, supra note 8.
11. See State and County Quickfacts supra note 9 (click on the respective states) (Texas is 261,231.71 square miles, New York is 47,126.40 square miles, and Pennsylvania is 44,742.7 square miles; combined it is 353,100.81 square miles).
the owners of these lands may describe themselves as “farmers” or “woodlot owners” or “ranchers,” the production of agricultural or forestry products is in most cases only a hobby; the primary use of their property is as their home.14

Their use of land is very distinct from their neighbors who are involved in commercial farming, forestry, or ranching. Many of those neighbors may have someone in the household who also works in town, and some rural landowners are in a transition from a hobby to a rural commercial activity. Nonetheless, there is a fundamental difference between the use of land by people who own it to produce income as an essential part of their livelihood and those whose use of their land is primarily residential.15 Out of the 2,204,792 “farms” identified by the 2007 Census of Agriculture, 31.2% grossed less than $1,000 during the survey year and 49.9% grossed less than $5,000 and had an average annual net loss of between $4,000 and $5,200 per year.16 These “farms” occupied 139 million acres (217,188 square miles).17

Another form of rural sprawl is second-home development. The owners of these large lots have a primary residence elsewhere and buy or develop acreage home sites primarily for seasonal recreational purposes.18 They are often located in high amenity areas, such as adjoining lakes and rivers, near national parks, and in areas of special scenic beauty.19

This form of rural sprawl can occur in locations very far from a city or town of any size, and can be found from Florida’s Gulf Coast20 to the southern slopes of the Alaska Range.21

14. See Toby Beavers, Charlotte Horse Farms, VA. HORSE FARMS, http://virginia-horse-farms.net/Charlottesville-Horse-Farms.html (last visited Nov. 12, 2013) (advertising a “[c]harming and restored Virginia farm house, very spacious with over 5,500 fin. Sq. ft. including 5BR/4.5BA.” Privately situated on 24 lovely pastoral acres off of Garth Rd, and only minutes from Charlottesville. Surrounded by large properties with protected views. 24.2 acres Located in Albemarle County Offered at: $2,495,000; see also E. Mont. Land & Home, supra note 13 (listing a ranchette, for example the “Bergerson Ranchette” of 210 acres in Custer County, Montana, features a house with Family Room with bar/fireplace, sun room, kitchen with stainless steel appliances, granite countertops, central vacuum, and whole house fan).


17. Id.


19. Id. at 18.

The dispersal of homes across the rural landscape is visually far less
dramatic than the conversion of these same landscapes to more intensive,
suburban and urban residential (and other) uses. But the environmental
damage is real and significant.

Glennon and Kretser’s research on low-density residential development
in New England found evident and compelling environmental damage.
“Exurban development represents a potential threat to wildlife communities
and ecological integrity in rural landscapes worldwide and recent work has
suggested that its ecological impacts can be similar to those associated with
more characteristically urban development patterns.”

Exurban sprawl harms wildlife through habitat destruction and fragmentation, introduction
of non-native species, changing nutrient cycles, patterns of fire, and other
means. Exurban sprawl has been identified as one of the main factors
damaging ecosystems and threatening biodiversity worldwide.

In addition, there are many important non-environmental impacts,
including reduction of the land base for farming, ranching, and forestry;
introduction of conflicts between rural residential uses and agriculture and
forestry; and the costly extension and maintenance of roads, rural school
transportation, and rural emergency services to cover wide areas with low
populations.
In the United States there are several different strategies for curbing exurban sprawl. The most widespread forms are: public acquisition, conservation easements, the purchase of transfer development rights, cluster zoning, and land regulation (e.g. rural land zoning). In practice, many efforts to curb exurban sprawl incorporate elements from one or more of these approaches along with supplementary programs, such as current use property tax assessment. Each of these conservation and protection mechanisms has strengths and weaknesses, which are discussed in turn below.

II. PUBLIC ACQUISITION OF PROPERTY, CONSERVATION EASEMENTS, AND DEVELOPMENT RIGHTS

The simplest and most direct way of protecting rural lands from exurban sprawl is to purchase them and to place these lands in public ownership. Many states have rural land acquisition programs, as do some local governments. The purposes of state rural land acquisition programs include: protecting wildlife habitat and areas of special ecological significance; maintaining biodiversity; protecting places for outdoor recreation; access to and protection of coastal resources; protecting ground water recharge areas; preserving working landscapes (farmlands, rangelands, and historic properties and places); and stopping sprawl. These programs maintain or enhance tourism, economic vitality, and the quality of life. The acquired lands may become parks, access routes, remain as undeveloped natural areas, or working farms and forests; however, low-density exurban rural residential development is not permitted.


28. E.g., Williams Act, CAL. GOV’T CODE § 51200 (West 2012); Californian Timberland Productivity Act of 1982, CAL. GOV’T CODE § 51100 (West 2012). This regulation assesses property taxes based on current farm and forest use, instead of highest and best development values, for lands enrolled in conservation programs.

29. E.g., CAL. PUB. RES. CODE § 31050–31054 (West 2007) (legislative findings for the California Coastal Conservancy); FLA. STAT. § 259.105(2)(a) (2012) (legislative findings describing the purposes of the Florida Forever Act of 2001); MD. CODE ANN., NAT. RES. § 5-9A-01(a) (West 2013) (stating purposes of Maryland Rural Legacy Program); VT. STAT. ANN. tit. 15, § 302(a) (West 1987).

30. Id.

31. FLA. STAT. § 259.032(4) (2012).
Rural lands can be protected from exurban development by programs that stop short of acquiring title to property. 32 Public agencies alone or in partnership with nonprofit organizations can acquire conservation easements or purchase the development rights on particular properties. 33 Conservation easements and purchase of development rights draw on the same sources of funding as land acquisitions. 34 Federal and state governments provide tax incentives for landowners to impose conservation easements on their land or to donate development rights; such donations can entitle the owner to a charitable tax deduction, a tax credit, a reduction in property taxes, or a combination of these incentives. 35 For example, Colorado created stronger incentives for these donations by granting a tax credit (instead of a deduction) equal to fifty percent of the easement’s fair market value and by making the tax credit transferable to third parties. 36 This is important because many rural land owners may have significant wealth tied up in land but do not generate enough taxable income to take advantage of a tax credit; creating a market for that tax credit means the tax credits are more valuable and more rural landowners will be interested in taking advantage of them.

Land acquisition, conservation easements, and purchase of development right programs have some important advantages as strategies to stop exurban sprawl. First, these programs avoid the political challenges of rural land regulation because landowner participation is voluntary. 37 Second, conservation easements can provide long-term protection for the lands generally beyond the reach of legislator’s changing policy preferences,

32. Id. at § 260.015(1).
33. See UNIF. CONSERVATION EASEMENT ACT § 1, 12 U.L.A. 163 (1981), which many states have adopted and defines a conservation easement as a “non-possessory interest of a holder in real property imposing limitations or affirmative obligations the purposes of which include retaining for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property.” See also UNIF. CONSERVATION EASEMENT ACT § 1–2, 12 U.L.A. 163 (1981) (purchasing development rights can be considered a subset of conservation easements because the phrase “purchase of development rights” describes programs in which conservation easements are purchased, rather than donated; the act restricts the passive obligation not to develop the property, rather than on both passive obligations and affirmative conservation duties (for example, to restore riparian vegetation)).
35. See 26 U.S.C. § 170(e) (2006) (adopting a conservation easement or donating development rights to a qualified nonprofit organization entitles a donor to a federal income or capital gains tax charitable deduction).
37 USDA, supra note 34, at 17–18, 21.
depending on how the conservation easements are held and administered.\textsuperscript{38} Third, land acquisition programs are usually less complicated and expensive to administer than transferable development right programs or local and state land use regulations.\textsuperscript{39}

Despite these advantages, the success should be weighed against one major disadvantage: funds are so limited that only relatively small areas of land can be protected from exurban development.\textsuperscript{40}

Consider Florida, Vermont, and Colorado, states with very robust programs to conserve lands through acquisition of title or conservation easements.\textsuperscript{41} The Florida Department of Environmental Protection (DEP), which administers the Florida Forever program, reports: “since its inception in July 2001 to the present the Florida Forever program has acquired more than 683,000 acres of land with 2.87 billion dollars.”\textsuperscript{42} At that rate it will take 463 years to protect the remainder of Florida’s private rural lands.\textsuperscript{43}

After almost twenty-five years the Vermont Housing and Conservation Trust Fund program reports conserving “143,000 acres of agricultural land.”\textsuperscript{44} Additionally the program conserved 252,700 acres of natural areas, recreational land, and historic properties.\textsuperscript{45} That is about eight percent of the

\textsuperscript{38} See generally id. at 2 (The protection supplied by these mechanisms depends on how the conservation easements are held and administered).

\textsuperscript{39} NORTH LOGAN - CACHE CNTY., GUIDEBOOK: TRANSFER DEVELOPMENT RIGHTS 1, 12 (Oct. 2003) available at http://www.planning.utah.gov/Planninggrants/deliverables/2001/Final-TDR%20Guidebook-LR.pdf (describing that this is particularly true when responsibility for administration of the easements is borne partly or entirely by nongovernmental organizations).

\textsuperscript{40} Bengston et al., supra note 27, at 279.

\textsuperscript{41} See FLA. STAT. § 259.105(2)(a) (2012); VT. STAT. ANN. tit. 15, § 302(a) (1987); COLO. REV. STAT. § 33–60–107(3) (2013) (providing very generous tax incentive programs).


\textsuperscript{43} This calculation is made by calculating an annual land conservation figure of about 59,000 acres conserved by year, by dividing 683,000 acres conserved over 139 months (July 1, 2001 to January 31, 2013). According to the 2007 Federal Natural Resources Inventory, Florida’s total surface area was 37,533,700 acres. NATURAL RES. CONSERVATION SERV., supra note 12, at 14. According to a February 2013 report by the Florida Department of Environmental Protection, there was a total of 10,202,865 acres of land conserved in federal, state, and local fee ownership, and public and private conservation easements plus mitigation banks. FLA. NATURAL AREAS INVENTORY, FLA. DEPT. OF ENVTL. PROT., SUMMARY OF FLORIDA CONSERVATION LANDS: INCLUDING LESS-THAN-FEE CONSERVATION LANDS 1 (Feb. 2013), available at http://www.fna.org/PDF/Maacres_201302_FCL_plus_LTF.pdf.

\textsuperscript{44} NATURAL RES. CONSERVATION SERV., supra note 12, at 3.

\textsuperscript{45} Conservation Programs, VT. HOUSING & CONSERVATION BD., http://www.vhcb.org/conservation.html (last visited Nov. 12, 2013) (describing program accomplishments from inception in 1987); See also Spatial Analysis Lab., Vermont Conserved Lands Database, UNIV. OF VT., http://www.uvm.edu/essen/sal/vtcons.html (last visited Nov. 12, 2013) (estimating about twenty percent of the state had been conserved as of 2000, including federal lands. The Spatial Analysis Lab is a cooperative organization comprised of stakeholders at every level, and is indicative of Vermont’s commitment to land conservation).
state’s non-Federal, rural land area as of 2007. At that pace, it would take about 300 years to conserve the rest of rural Vermont.

The Colorado conservation easement tax credit program may be the most successful state program of its type in the nation, as measured by the amount of land conserved. Between 1999 and 2010, Colorado conserved an average of 100,000 acres per year. But even if 100,000 acres were protected every year for the next 100 years, the end result would be the protection of about fifteen percent of the land area of Colorado. In addition, the properties that are conserved by easement are widely scattered and many appear to be in areas not threatened by development.

III. TRANSFERABLE DEVELOPMENT RIGHTS: APPEALING IN THEORY, BUT LIMITED IN APPLICATION

Transferable development rights (TDR) programs protect rural land from exurban sprawl. TDR programs quantify and transfer an entitlement (a “right”) to develop land from conserved land (the “sending” property). This right of the sending property is transferred to lands where development is desired (the “receiving” or “landing” property). In order for the receiving owner to use additional development rights on his or her property, the owner must buy them from the owner of the sending property. An easement protects the sending property from development. Typically these development rights are expressed in units of residential development.

46. NATURAL RES. CONSERVATION SERV., supra note 12, at 29, tbl.1.
47. COLO. LEGISLATIVE AUDIT COMM., OFFICE OF THE STATE AUDITOR, CONSERVATION EASEMENT TAX CREDIT: PERFORMANCE AUDIT 85 (2012).
48. See State and County Quickfacts, supra note 9 (100,000 acres for 100 years would be 10 million acres, which is 15,625 square miles; Colorado is 103,641 square miles).
49. But see Laura Snider, Boulder’s Blue Line Turns 50, COLO. DAILY (Jul. 21, 2009), http://www.coloradodaily.com/ci_12964275?IADID=Search-wwww.coloradodaily.com. Boulder County, Colorado is an important exception to this statement and a good example of larger scale, concentrated conservation by use of conservation easement. Boulder Colorado adopted a “blue line” limiting development to the west (along the foothills of the mountains) in 1959, and the boundary around the eastern part of the city was added shortly thereafter. Several years later the residents voted to enact a sales tax to buy open space around the city. Today there are 40,000 acres of protected lands around the city.
51. Id.
52. Id.
State and local governments create TDR programs to achieve both development and conservation objectives; intensifying residential development in an urban or suburban receiving area and eliminating or limiting residential development in the sending area.

TDR programs can be voluntary or mandatory. Voluntary TDR programs authorize the transfer of rights. By contrast, mandatory programs limit or replace an owner’s entitlement to develop the property with the right to sell the development right.

A central concept in TDR programs is the creation of a free (unregulated) market in TDRs. However, experience has demonstrated the value of creating institutions to facilitate these transactions, such as TDR banks. TDR banks often incorporate governments and nonprofit conservation organization TDR purchases.

Determining how many “rights” to award to the owners of the sending property is one of the thorniest problems in establishing a TDR program. It requires a blending of administrative, political, and constitutional considerations. Because they offer compensation to landowners, TDR programs occupy a middle ground between voluntary, taxpayer, and charitable giving financed conservation programs and involuntary regulatory programs that prevent exurban sprawl without providing payments to landowners. Like conservation easement programs, TDR

building/transfer-development-rights/overview.aspx (last visited Nov. 12, 2013) (describing King County, WA’s TDR program’s private and public development).

54. Pruett & Standridge, supra note 50, at 78.

55. Id.


57. Id.

58. Pruett & Standridge, supra note 50, at 85.

59. Id.


61. R.S. Radford provides a useful review of the very limited Supreme Court case law on TDRs, from the perspective of a critic of government regulation of land. Based on the Supreme Court’s decision on the Tahoe Regional Planning Agency’s TDR program, he reasons that “[i]f land in a ‘sending’ district is downzoned so severely as to constitute a taking under Lucas and the TDR program is viewed as compensation, the TDRs must meet the rigorous standard of providing a “full and perfect equivalent for the property taken.” On the other hand, if the availability of TDRs is counted as an economically viable use of the regulated property, then the government may avoid liability for a taking altogether. At least, a regulating agency employing TDRs would never be liable for a categorical taking under Lucas.” R.S. Radford, Takings and Transferable Development Rights in the Supreme Court: The Constitutional Status of TDRs in the Aftermath of Suitum, 28 STETSON L. REV 685, 688, 691–92 (1999) (reviewing Scalia’s dicta regarding whether development is an “inherent right” of property and therefore any substitution of a TDR for that right would require compensation. This is a very different line of analysis than allowing the owner an economically beneficial use of property given that economic benefits not only take many forms but also change over time).
programs also contain an element of free market exchange in the buying and selling of the development rights.

TDR programs can also incorporate other elements that appeal to concerns about fairness. The most important is that TDR systems provide some offsetting development opportunities to replace those lost in order to conserve the land in the sending zones. At the other end of a TDR transaction there can be another element of fairness. Outside of the context of TDR programs, public investments in roads, parks, and schools increase the value of nearby property, creating a “windfall” that disproportionately benefits some landowners, relative to the large number of taxpayers whose tax money financed the improvements. Those public investments can be used to enhance the attractiveness of the “landing zones” whose primary beneficiaries are the owners of the sending areas. In other words, it is possible to partly balance the wipe-outs with the increased value created by the windfall.

This combination of elements of fairness and the free market make TDR programs attractive in theory; yet, they remain relatively rare in practice.

As of the date of a 2009 article, at least 191 TDR programs had been established in the United States.62 The twenty largest of these programs conserved 350,000 acres, combined.63 New Jersey’s TDR program for the Pinelands and King County, Washington’s program illustrate two successful TDR programs.64

The New Jersey Pinelands Commission was formed in 1979, following passage of New Jersey’s Pinelands Protection Act. The Commission found

The current pace of random and uncoordinated development and construction in the pinelands area poses an immediate threat to the resources thereof, especially to the survival of rare, threatened and endangered plant and animal species and the habitat thereof, and to the maintenance of the existing high quality of surface and ground waters; that such development and construction increase the risk and extent of destruction of life and property.65

62. Pruetz & Standridge, supra note 50 at 80. The programs that have protected the most lands are in King County, Washington (91,500 acres), the New Jersey Pinelands (55,905), and programs in Calvert, and Montgomery Counties, Maryland, that have conserved a combined total of about 76,000 acres.

63. Id.

64. Id.

According to the Pinelands Commission, this protected area contains 1.1 million acres, which is twenty-two percent of New Jersey.66 “It is the largest area of open space on the Mid-Atlantic seaboard between Richmond and Boston, and is underlain by aquifers containing seventeen trillion gallons of some of the purest water in the land.”67

In 1981, the Pinelands Commission created a TDR program using Pinelands Development Credits (PDCs) as part of the strategy for the implementation of the Pinelands’ Comprehensive Management Plan.68 “PDCs are allocated to landowners in these districts based upon the land type and number of acres of a given parcel.”69 The TDR market did not take off until the mid-1980s, when the state created the Pinelands Development Credit Bank.70 The Credit Bank purchases TDRs from a seller if no other buyer can be found, and can then sell the right to a developer at a future date.71

The Pineland Development Credit Bank’s 2011 annual report stated that since inception in 1981, 10,865 development rights had been allocated to landowners, 7,060 of those development rights had been purchased (“severed” from the land).72 Of those 7,060 development rights, 4,550 had been used to authorize an additional 4,550 homes in forty-two different

67.   Id.
68.   For example, within the Preservation Area District, PDCs are allocated at one PDC per 39 acres of upland and two-tenths a PDC for 39 acres of wetlands. . . . No PDCs are allocated to a parcel if it is 10 acres or less and is already developed for a commercial, industrial, or other such use. For parcels less than 39 acres, the property owner receives fractional PDCs at the same ratio established for the management area in which the parcel is located. The number of PDCs is also reduced by one quarter PDC for each single family dwelling existing on a parcel. Each PDC allocated to a parcel equals four transferable development rights. . . . Under the PDC Program, Regional Growth Areas established by the CMP serve as receiving zones. Within these areas, purchasers of PDCs may use the development rights to build at densities above the base density. . . . Once the Pinelands Commission identified and designated the Regional Growth Areas, municipalities where these areas are located had to amend their municipal master plans and local development regulations to accommodate them.” N.J. HIGHLANDS WATER PROT. AND PLAN. COUNCIL, ESTABLISHED TDR PROGRAMS IN NEW JERSEY: NEW JERSEY PINELANDS DEVELOPMENT CREDIT PROGRAM (2007), available at http://www.nj.gov/agriculture/sadc/tdr/casestudy/tdrexamplesnj.pdf.
69.   Id.
71.   Id.
72   N.J. PINELANDS COMM’N, PINELANDS DEV. CREDITS SUMMARY REP. THROUGH DEC. 31, 2010 1, 2–3, 6, 12–13 (April 2011), available at http://www.nj.gov/pinelands/landuse/perm/pdc/2010_PDC_Summary_Report.pdf (Average prices on the open market began at a low of $2,006 per right in 1986 ($8,024 per PDC), peaked at $30,413 per right ($121,652 per PDC) in 2005 and in 2010 the mean sale price was $15,789 per right ($63,156 per PDC)).
municipalities. The remaining 3,805 development rights had been purchased and extinguished as part of purchased and donated conservation easements. This resulted in the conservation of 58,633 acres (about ninety-two square miles) of land in the Pinelands. While the total acreage of the Pinelands TDR program is comparatively modest, the land that is conserved is concentrated in one region, resulting in more complete realization of the conservation objectives within that area. The program is often cited as one of the most successful TDR programs in the nation.

King County, Washington initiated its program in 1988, and included both rural and urban sending and receiving areas. Like New Jersey, there were almost no transactions until the 1990s and 2000s when a TDR bank was established and the value of development rights in the rural sending areas increased. Both governments and private parties buy development rights, which range in price from $4,000 to $30,000 per TDR.

As of early 2013, King County’s program had resulted in conservation easements on 141,500 acres. The county purchased easements on another 43,000 acres in April 2013 for approximately $11 million. This purchase brought the total area protected by the TDR program to approximately 185,000 acres (289 square miles.) If the land planned for urban development inside the regional Urban Growth Area and public lands are excluded, this means that in less than two decades since the TDR program began,

73. Id. at 12.
74. Id.
75. Id. at 1, 3.
76. James T.B. Tripp & Daniel J. Dudek, Institutional Guidelines for Designing Successful Transferable Rights Programs, 6 YALE J. ON REG. 369, 378 (1989); But see N.J. PINELANDS COMM’N, PINELANDS DEV. CREDITS SUMMARY REP. THROUGH DEC. 31, 2010 1, 2–3, 6, 12–13 (2011); supra note 72 (58,633 acres conserved); but cf. FLA. NATURAL AREAS INVENTORY, supra note 43 (a total of 10,202,865 acres conserved).
78. Id.
conservation easements have been applied to more than two-fifths of the county’s private rural land.82

The map of sending and receiving areas illustrates that the protected areas are large blocks of forestland in the foothills of the Cascade Mountains several miles from the edge of the urban growth area.83 The protected areas are also several miles from lower elevation lands, closer to the urban growth area, where some agriculture may be practiced.84 The locations do no have conserved extensive road networks.85

The New Jersey Pinelands and King County programs exemplify the advantages of a TDR program. TDRs can reduce or avoid the heavy tax burden of purchase programs that require significant taxes to fund conservation easements or the purchase of development rights.86 Also, they can address or mitigate the concerns about the fairness of regulatory programs that reduce or eliminate previously authorized development entitlements without compensation.87

There are disadvantages to a TDR program as well. They are complex to establish, complicated to explain to those who must enact them, and difficult to administer.88 The amount of land that can be conserved is limited

82. Dow Constantine, Statistical Profile on King County, 2010 CENSUS, http://www.google.com (search for "King County Washington Statistical Profile 2011"); then follow "King County QuickLinks" PDF hyperlink. The Urban Growth Area, designated for urbanization under the state’s Growth Management Act, is 461 square miles. Id. Federal, state, and local governments own 979 square miles. TRUST FOR PUBLIC LAND, GREENPRINT FOR KING COUNTY, app. at 9 (August 2004) (King County Washington Land Conservation Financing Study), available at http://your.kingcounty.gov/dnrp/library/2005/KCR1856/AppendixA-Conservation-Finance-Study.pdf (converting acres to square miles).

83. TDR property map viewer, KINGCOUNTY.GOV, http://www.kingcounty.gov/environment/stewardship/sustainable-building/transfer-development-rights/tdr-map-viewer.aspx (last visited Nov 12, 2013). This conclusion is based on a comparison of the County’s map of TDR sending areas.

84. Id.

85. Id.

(1) Land that is important to the health of the local environment and the well-being of County citizens is protected at no public expense . . . . The County—and its taxpayers—do not pay the high price to buy land outright, nor do they incur long term management costs of the land if it were put into public ownership; Land is permanently preserved and remains in private ownership and is managed by private landowners; (2) Development growth is focused into urban areas and away from critical rural and resource areas . . . . This creates more efficient development patterns and makes use of urban infrastructure to reduce the amount of development in the County’s rural and resource lands; TDR acts to reduce and minimize the significant costs to the County of providing services to rural development located far from urban services.

87. Id.

by the demand for the development rights. Another disadvantage stems from requiring development rights as a condition for more intense development in urban areas, which can frustrate, rather than promote, higher density development and redevelopment, which is a key element in compact growth efforts.

IV. RURAL RESOURCE CONSERVATION THROUGH LAND USE REGULATIONS

A. Clustering of Rural Residential Development

Clustering of rural residential development is accomplished through land use regulations. These regulations concentrate authorized residential development into a smaller portion of a parcel (or contiguous parcels in the same ownership) and conserve the remaining area as open space through regulations or conservation easements.

Rural cluster residential development is distinct from typical residential land division standards that set minimum lot sizes, resulting in uniform lot size.

The result is a different development pattern, with clusters of homes scattered across a landscape interspersed with blocks of conserved land. Clustering can be mandatory or voluntary. Voluntary programs utilize incentives to spur implementation. These incentives may include authorization of additional dwellings if development is clustered or property tax benefits for conserved lands. Clustering provisions may be used alone or combined with other conservation programs.


89. Both New Jersey and King County programs apply to areas where there is substantial population growth, high land values in the receiving areas that are subject to land use regulation that enhance the demand for TDRs.


92. See id. at 5 (describing the various types of rural cluster zoning and discussing their legal bases).

93. See id. at 4 (“[d]ensity bonus provisions... can often provide an extra incentive for a developer to use cluster development.”).

94. See id. at 8 (“[a] successful cluster development must feature a regime of conservation easements, restrictive covenants and an established method of open space administration.”).
Clustering programs have several advantages. They interfere less with landowner’s development expectations than both land use regulatory systems and mandatory transferable development rights.95 The costs are far less than programs acquiring fee title, conservation easements, or development rights.96 Furthermore, such programs are as easy to administer as most other zoning provisions.97 However, the effectiveness of clustering ordinances to curtail exurban sprawl depends entirely on the content of the ordinance and the patterns of ownership in the area to which the ordinance applies.98

B. Rural Conservation Zoning and Limits on Urbanization

Some states and many smaller units of government have adopted rural conservation zoning and limits on urbanization that go far beyond clustering requirements to limit or prohibit rural residential development and set boundaries for urban development. The legal tools used are the same kind of land use regulations used by cities and towns to manage urban development. Entities can apply these regulatory systems in ways that preserve large, contiguous blocks of rural land at both the state and local level.

Minnehaha County, South Dakota; Baltimore County, Maryland; and Oregon provide good examples of these rural zoning programs. Each of these units of government encompasses one or more growing metropolitan areas that exert significant development pressures on nearby rural lands.

The purposes for these regulatory conservation efforts are similar but not identical to the purposes stated for other rural land conservation programs.99

95. See id. at 6–7 (“[p]ermitting procedures for rural cluster projects should be no more difficult for cluster developments than for traditional subdivisions. . . .”).
96. Id.
97. Id.
98. If the predominant ownership pattern is forty acre parcels, and the ordinance creates one right for every ten acres and allows the lots to be as big as five acres, then the conserved landscaped will consist of twenty-acre parcels intermixed with an equal amount of large-lot residential lands. Those scattered twenty acre homesites will probably be too small and fragmented to provide wildlife habitat and too small to cost-effectively use for farming, ranching, or forestry. On the other hand, assume the dominant parcelization pattern is 160-acre parcels, and the clustering ordinance creates an entitlement to one residential lot for every twenty acres, and the maximum residential lot size is one-half acre. Once fully developed, the landscape will consist of large areas of rural lands with a scattering of small eight-unit subdivisions, occupying only four or five acres. Some habitat and other natural resource values will be somewhat compromised but not destroyed and farming, ranching, and forestry will remain viable.
99. To the extent there is a difference, the more emphasis is given to the protection of these lands for their private economic value as lands that produce crops, livestock, and forest products and to the need to avoid the cost-ineffective extension of public facilities and services to dispersed rural development. Less emphasis is given to the protection of environmental resources of general public benefit. That difference in emphasis is natural given the historical origins of the regulations in urban
The contents and procedures of the rural conservation zoning programs differ significantly from each other, as is the case with urban zoning regulations. However, these regulatory systems intended to protect rural lands all contain the same essential aspects: limits on the division of land into smaller units of ownership (parcelization), limits on the construction of new houses, and more general limitations on all other non-rural uses, such as commercial development.  

In 2012, Minnehaha County, South Dakota, had a land area of 807 square miles and a population of 175,037, including the city of Sioux Falls. It grew by eighteen percent between 2000 and 2012.

Together Sioux Falls and Minnehaha County adopted land use plans and implementing regulations that established a system that created a clear separation between urban development and the agricultural land surrounding the urban area. Urban development is to move outward gradually, in stages, to ensure that it is contiguous and compact. This approach protects farmland from scattered urbanization, but to curb exurban residential sprawl required separate regulation by Minnehaha County, which administers the land around Sioux Falls.

In 1998, the county adopted a comprehensive plan containing the purposes and policies for the protection of “Commercial Agricultural Areas” and the regulatory methods to be used. The following list details these purposes and policies as set forth by the county:

- Restrict the density of residential uses within commercial agricultural areas and direct higher developmental densities to the municipalities.

zoning that was designed to separate conflicting uses in order to protect the value of property for its primary use.

100. See infra. pp 18–24.
103. CITY OF SIOUX FALLS SOUTH DAKOTA, Shape Sioux Falls 2035, 26–27, Map 3a (2009), available at http://www.siouxfalls.org/planning-building/planning/shape.aspx; For the complementary Minnehaha County plan elements see text at footnote 105.
• Preserve and protect the agricultural productivity of rural land by restricting the development of nonfarm residential sites. Maintain a residential density of not more than one building site per quarter-quarter section [40 acres].
• The premature development of agricultural land should be discouraged.
• Discourage development patterns that require public improvements financed in part by the farming community but which are not necessary to support agriculture.
• Limit rural densities so that current service levels are not exceeded, thereby avoiding the creation of special purpose districts (i.e. sanitary, water and road districts).
• Discourage the splitting of land parcels into fragmented units that are incapable of supporting farming activities.
• Protect the rural area from uses that interfere and are not compatible with general farming practices.
• Avoid regulations that have a negative impact on farming operations.
• Promote development patterns that will avoid producing inflated agricultural land values.
• Within the framework of density zoning, every effort should be made to cluster residential uses and limit driveway approaches onto arterial and collector roads.
• Construction of infrastructure improvements in the rural area should be directed at addressing existing service deficiencies and not to justify additional nonfarm development.105

The A-1 Agricultural District in Minnehaha County imposes these limitations on home construction and land divisions.106

The County Comprehensive plan does not identify the number of acres in the A-1 District. However, an on-line fact sheet states that the “vast majority” of the area outside incorporated cities is in the A-1 District.107 Judging from the appearance of the zoning map, the share is probably more

than eighty percent of the entire county. 108 Eighty percent of the county would translate into more than 400,000 acres. To put this in perspective relative to other efforts to protect rural lands from exurban sprawl, the amount of land protected by A-1 zoning in this one county in South Dakota is equal to or larger than the acreage protected by donated and purchased conservation easements in Vermont over the course of twenty-five years. 109 It is also the same size or larger than all the land protected by the twenty biggest transferable development rights programs in the U.S. up until 2009. 110

Baltimore County’s program, like Sioux Falls and Minnehaha County, combined limits on urban expansion with rural conservation zoning.

Baltimore County, which excludes the city of Baltimore, is 598 square miles in area. 111 Between 2000 and 2012, the county’s population grew 8.4% to 817,455 people.112 The effort to protect rural areas began in 1967, when the county developed the concept of delineating two distinct land management areas—the urban area and the rural area—to maximize the efficiency of county revenues on infrastructure in urban areas and preserve important natural and agricultural resources in rural areas. An urban–rural demarcation line (URDL) was established reflecting development of this concept. 113

This first step was followed by the adoption of urban and rural zoning in 1975 and by further refinements to implement the 1979, 1989, and 2010 Master Plans. 114

Under the zoning rules adopted to implement the 2020 Master Plan, about one-half of Baltimore County (roughly 300 square miles or 192,000

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109. Conservation Programs, VT. HOUSING & CONSERVATION BD., supra note 45.
111. State and County Quickfacts supra note 9.
114. Id.
acres) fell within one of the “Resource Conservation” zones. The Rural Conservation areas are made up of separate conservation zones (which include attendant regulations) for “Agriculture,” “Resource Preservation,” “Watershed Protection,” and the “Chesapeake Bay Critical Area.” The Rural Conservation areas also include zones where higher intensity rural residential development is allowed (“Rural Residential,” “Rural Conservation and Residential,” “Commercial,” and “Environmental Enhancement”). The majority of the rural area is classified as Agricultural or Resource Preservation.

The 2010 Master Plan states that about 100,000 acres (about twenty-five percent of the county’s land area) is used for commercial agriculture.

The Master Plan describes the need to maintain a minimum amount of contiguous land to sustain agriculture, prevent conflicting uses (including residential uses), and maintain parcels in sizes that are big enough for modern farming. Each factor is meant to protect farmland.

The Agriculture zone is the largest of the Rural Conservation zones. It allows a wide variety of non-agricultural uses like artist salons, dentist offices, and water bottling plants. However, the zone sharply curbs the further division of parcels, generally creating a fifty-acre floor on parcels, and also limits houses to one per parcel.

How successful has Baltimore County’s effort to curb rural sprawl been? From 1990 until the adoption of the 2010 Master Plan, an average of 443 permits for residences have been granted for the rural part of the county each year. This translates into 8,860 residential permits in the rural area. During the same period, Baltimore County grew by 112,895 people.

118. Id. at 233.
119. Id. at 221–23.
120. Id.
121. Id.
123. BALT., MD., CNTY. CODE §§ 1A01.2, 1A01.3 (2008).
124. Id.
125. BALT. CNTY. COUNCIL, supra note 113 at 213.
126. See State and County Quickfacts, supra note 9 (stating the 2010 Baltimore population was 805,029) but cf. U.S. CENSUS BUREAU, U.S. DEP’T OF COMMERCE, Historical Population Counts, (Mar. 27, 1995) http://www.census.gov/population/cencounts/md190090.txt (stating the 1990 Baltimore population was 692,134).
Baltimore County, a household averages 2.48 persons.\textsuperscript{127} That means that about twenty percent of Baltimore County’s residential development over twenty years took place in the rural parts of the County. However this includes those parts of the county designated for rural residential development. Given the scale of the land area and amount of growth, Baltimore County has certainly greatly curbed the amount of exurban development that would have occurred without its program, compared to rural residential development in other counties in Maryland.\textsuperscript{128}

The Oregon program, like the county programs in South Dakota and Maryland, combines limits on urban development and rural conservation zoning that limits, and in many cases prohibits, rural residential development. The difference is that it applies them with even greater rigor and over a far larger area.

Oregon is about 96,000 square miles in area and had a 2010 population of 3.9 million people,\textsuperscript{129} a fourteen percent increase from 2000.\textsuperscript{130}

In 1973, Oregon enacted statewide growth management legislation that established state and regional planning goals, which local governments and state agencies were required to implement.\textsuperscript{131} Those goals included the preservation of agricultural land and the conservation of forestlands.\textsuperscript{132} Over the years since 1973, this original statewide growth management legislation was reinforced by what now constitutes an elaborate and lengthy statutory zoning code for farm and forestlands.\textsuperscript{133}

\textsuperscript{127} See State and County Quickfacts, supra note 9 (recording Maryland averaged 2.48 persons per household during 2007-2011).

\textsuperscript{128} The Maryland Task Force on the Future for Growth and Development in Maryland commissioned research on the effectiveness of the state’s effort to focus residential growth into Priority Funding Areas (“PFAs”). The research found “that the annual percentage of parcels developed outside PFAs rises from approximately 24% in 1990 [prior to the implementation of the PFAs as part of the state’s Smart Growth statutes and programs] to 26% in 2004. Figure 6 shows that the acres of land developed for residential use outside PFAs rose from approximately 75% in 1990 to 77% in 2004.” Rebecca Lewis, et al., Managing Growth With Priority Funding Areas: A Good Idea Whose Time Has Yet to Come, J. AM. PLAN. ASS’N. (JAPA) 457, 467 (2009), available at http://www.washingtonpost.com/wp-srv/metro/pdf/smart_growth_study.pdf.

\textsuperscript{129} See State and County Quickfacts, supra note 9 (stating Oregon’s 2010 land area was recorded at 95,988 square miles and its population recorded at 3,831,073).


\textsuperscript{131} Oregon’s Growth Management Program, supra note 26, at 10368.

\textsuperscript{132} OR. DEP’T OF LAND CONSERVATION & DEV., OREGON’S STATEWIDE PLANNING GOALS & GUIDELINES, Goal 3 at 1, Goal 4 at 1 (Mar. 12, 2010), http://www.oregon.gov/LCD/docs/goals/compilation_of_statewide_planning_goals.pdf (citing OR. ADMIN. R. 660-15-0000(3), (4)).

About 16.1 million acres of private land in Oregon are in the Exclusive Farm Use (EFU) zones.134 8.2 million acres are in forest zones, and 2.2 million acres are in mixed farm-forest zones.135 Farm and forest zoning applies to more than ninety-five percent of Oregon’s private lands.136

Within the various regionalized types of EFU zoning, there is no general entitlement to build a house on any parcel, regardless of the parcel size. Instead, seven different categories of houses are allowed on EFU zoned land. One such category includes a primary residence for persons engaged in commercial agriculture, as measured by gross farm sales.137 Another type of house allowed is an accessory dwelling for farm workers.138 There can also be nonfarm dwellings on a parcel if it is found generally unsuitable for agriculture.139 Finally, there can be a limited number of dwellings on certain lots of record created before 1985.140

Land division standards differentiate between creating parcels for nonfarm dwellings, which need to be small, and creating parcels for other purposes, which require retaining land ownership in larger units (e.g. eighty acre parcel sizes for farming, and 160 acres for rangeland use).141

In the eleven years from 1997 to 2007, local governments approved 6,485 new homes on the 16.1 million acres in Exclusive Farm Use zones.142 This equals about one home for every 2,500 acres (4 square miles).143

136. See ROSS GORTE, ET AL., CONG. RESEARCH SERV., Federal Land Ownership: Overview and Data (2012) (finding fifty-three percent of Oregon’s lands are in Federal ownership); but cf. U.S. BUREAU OF THE CENSUS, DEP’T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 1991, 201 (111th ed. 1991) (stating another 7.4% were in other public ownership as of 1991). The remaining 39.6% of the 96,000 square miles equals 24.3 million acres. This is less than the total amount of land identified in farm, forest and mixed farm forest zones. However, state owned forest and rangelands are included in those totals as well as other non-Federal publicly owned lands.
140. Id. at § 215.705(a) (2011).
141. Id. at §§ 215.263; 215.708(1)(a), (b) (2011).
From the perspective of the amount of land being protected and the limited and slow rate of residential development, this is a very impressive performance. But it may not be adequately judged against the state’s own goal of preserving farmland, particularly since the houses are not evenly distributed across Oregon’s farmland. Over the course of a few decades the program is allowing the gradual conversion of its farm zones into very low-density rural residential areas.

Unlike EFU zoning, Oregon’s forest conservation zoning allows houses outright at densities of 160 to 320 acres depending on productivity of the forested land, as well as some dwellings on less productive lands, and lots of record created before 1985. The minimum parcel size in forest zones is eighty acres.

These limitations on division and development forest zoning in Oregon withstood challenges under the state and Federal constitutional protections against regulatory takings because forestry is an economic use of the property and the purpose of protecting forestry from conflicting residential uses was a legally legitimate use of the State’s police power.

In the eleven years from 1997 through 2007, 5,016 dwellings were approved in forest zones. This equals about one home for every 1,600 acres (2.7 square miles).

As with Exclusive Farm Use zones, this performance looks very good by comparison with other states, even those with their own forest conservation efforts, but this steady introduction of new houses into...
forests, if continued over several decades, will change the use and character of these lands, compromising both their capacity to produce timber and their role as sources of water and wildlife habitat.

The data allow us to compare Oregon’s largest metropolitan area, the three counties containing the Oregon portion of the Portland metropolitan area, with Baltimore County, which contains the largest share of Maryland’s largest urban area.

In the three counties that comprise the Portland Metropolitan Statistical Area within the State of Oregon, almost exactly 100,000 permits for residential structures (single and multifamily) were approved between 1998 and 2008.\textsuperscript{151} About two percent of those were approved for sites in Exclusive Farm Use or Forest zones and another two percent were approved in rural residential zones outside urban growth boundaries.\textsuperscript{152} This compares with the twenty percent share of residential development outside of the Urban-Rural Dividing Line between 1990 and 2010.\textsuperscript{153}

As illustrated by these three examples, the use of rural conservation zoning (combined with limits on urban development) has many strengths, such as (1) large areas of land can be protected, (2) taxes and tax benefits are not required to achieve the conservation objectives, and (3) the regulatory system of zoning is familiar. There are also serious disadvantages, including high levels of initial and continuing political opposition.\textsuperscript{154} Compared to conservation easements and acquisition of fee title, there is less certainty about the possibility of actual conservation since regulatory programs are subject to political change and pressure.\textsuperscript{155}

\textsuperscript{151} E-mail from Zach Christensen, Metro Research Center, containing “UGB capture rate for dwelling units; preliminary research results” table (Nov. 28, 2008) (on file with author). Some of these research results and the map that displayed the location of residential permits were published by Metro as part of its regular urban growth report in 2010. However, that report presented only the data on the distribution of permits inside the Portland regional urban growth boundary and not information on the permits for residential development outside the regional UGB.

\textsuperscript{152} Id.

\textsuperscript{153} See supra texts accompanying notes 134 and 135.


consequence, the programs, initially or over time, allow for a continuing trickle of rural residential development with long-term consequences.

V. A REFINED HYBRID APPROACH COULD COMBINE EFFECTIVENESS AND GEOGRAPHIC BREADTH WITH POLITICAL FEASIBILITY

As noted previously, many of the rural land conservation programs combine several elements, such as transferable development rights and purchase of development rights. There is now enough time and experience in administering these conservation programs to create an even more effective hybrid approach that would allow state and local governments to conserve far more of America’s rural resource lands. The new hybrid approach should be implemented incrementally, as political and fiscal opportunities present themselves. The following paragraphs describe the key elements of the program framework and administration:

In the first stage, local governments can adopt or clarify their rural land conservation policies, identifying the lands and resources to be conserved, with specific measurable goals or outcomes tied to performance dates. The program preferably should be statewide, but it could be adopted at a multi-county regional level, or even within a single county.

Only large areas of rural lands retaining substantial natural resource or commodity production value should be included in the program. Lands containing high proportions of exurban development combined with high levels of development entitlement would be excluded (excerpt perhaps as landing zones for TDRs). Different conservation plans should have different sets of objectives, such as farmland preservation, protection of wildlife, or protecting lives and property from natural hazards.

In the second stage of implementing the hybrid approach, existing rural development entitlements within the conservation plan area must be defined, capped, and stabilized. This may be the most politically difficult step, but also the most essential, as it is critical for the program to work.


156. MINNEHAHA Cnty., supra note 105, at 9-5 (the Minnehaha County land use plan is unusually frank in recognizing the long-term consequences of its policies of allowing this level of rural residential development, stating, “The current density zoning standard allows up to 16 residences on each square mile of land. This density may be contrary to long-term farming interests who must endure more nonfarm population while attempting to sustain a profitable business without causing conflicts with neighbors.”).

157. Rural land owners assume that their property can and will be developed for significant residential use at the maximum level of current entitlements whether or not the market and other circumstances would actually result in that development. Rural development market analyses could be useful in establishing objective information about actual size of the rural development market and
The program must be able to define, limit, and then reduce the total amount of residential development.

In the third stage of implementation, residential development rights, each associated with contiguous ownership, would be reviewed and certified to the property. This would often be a laborious exercise. Residential development opportunities are limited by the contingent nature of entitlements under many zoning systems, unknowns about the feasibility of water supplies, sewage disposal, and the location of natural hazard zones and already protected natural resources.

In addition to the steps outlined above, mandatory or voluntary cluster zoning would be implemented for larger lots. The implementing government would create a land conservation fund with staff and capitalize a TDR bank.

Landowners could make use of their development rights in a multitude of ways. These include selling or donating the development right to the government or a nonprofit organization, selling or transferring it for use through a TDR system to a landing zone, or by on-site development under the cluster zoning ordinance.

When the development right is used, the land from which it was derived would lose all future residential development rights through the adoption of a conservation easement, publicly held by a state agency or the local government. Another arrangement that might protect the public interest in easements would be for easements to be held jointly between the county government and a nonprofit, with each party having veto rights. These easements would be subject to very strict tests in order to be broken. State statutes would be adopted to allow third-party enforcement of the conservation easements, and allow for the award of attorney fees. All of these arrangements would be necessary to provide the highest possible level of certainty that the development restriction would be permanent.

In order to increase the acreage in conservation easements, the state should adopt generous income tax credits and make these tax credits transferable to third parties. Only the lands identified in the conservation area plans would qualify for these tax credits. A local government could authorize credits against one or more of its local taxes for conservation easements (assuming these local credits do not contravene state...
constitutional provisions or state laws that define tax fairness). Current use property tax assessment would be mandatory for conserved lands (that is, not taxed on a hypothetical highest and best use not permitted under the program.)

An appropriate funding source for administration of the program and for various incentives would be a modest tax on government created “givings” (land value windfalls to property owners resulting from rezoning and publicly financed infrastructure).

In addition to providing conservation incentives, disincentives for rural residential development should be created by limiting the availability of rural services, capital improvements, and maintenance programs. The level and cost of rural services (school bus transportation, fire protection, road maintenance) should be consistent with the rural development pattern to be achieved.

CONCLUSION

Exurban residential sprawl is a serious environmental, fiscal, and economic problem for the United States. Over the past forty years, state and local governments have experimented with different approaches to curbing exurban residential sprawl. These programs have demonstrated that these different approaches are effective in different degrees in curbing rural residential sprawl but separately are either too weak or too politically challenging and unstable to protect large areas of rural America. State and local governments can now benefit from this experience to craft and implement hybrid programs that combine the strengths of these different approaches.
A CLEAR-CUT DANGER:  
COMMERCIAL LOGGING THREATENS THE QUALITY OF BOSTON’S DRINKING WATER SUPPLY

Casey Ryder*

TABLE OF CONTENTS

Introduction........................................................................................................................................... 152
I.  History and Overview of the Massachusetts Drinking Water System. 155
   A. Summary of Boston’s Early Drinking Water Supply ........................ 155
   B. The Construction of Boston’s Current Water System ....................... 157
      1. The Wachusett Reservoir .............................................................. 157
      2. Overview of the Quabbin Reservoir ............................................ 158
         a. Early Settlement of the Swift River Valley and Construction of the
            Quabbin ............................................................................. 158
         b. The Present State of the Quabbin ........................................... 159
   II. The Push for Filtration Under the Safe Drinking Water Act .............. 160
      A. The Need for Regulation .......................................................... 160
         1. Safe Drinking Water Act ......................................................... 161
         2. Surface Water Treatment Rule .............................................. 161
      B. Conflict over Filtration ............................................................ 163
   C. The Dangers of Logging in Light of the Litigation over the Wachusett
      Reservoir ............................................................................. 165
   III. Commercial Logging and the Watershed Protection Act ................. 166
      A. Overview of the Commercial Logging Controversy .................... 166
      B. The Watershed Protection Act as Applied to Commercial Logging at
         the Quabbin ..................................................................... 169
      Conclusion ............................................................................. 172

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INTRODUCTION

The Quabbin Reservoir is a man-made wonder located at the heart of the Massachusetts public drinking water system. Constructed in the 1930s, the Quabbin remains one of the largest man-made reservoirs in the United States, as well as one of the largest unfiltered water supplies in the world. The Quabbin’s incredibly pure water supply provides more than 400 billion gallons of water to more than two million Massachusetts residents. The reservoir is a beautiful sight that can be described as “[what] seems like a huge, natural idyllic creation from The Ice Age.” Indeed, the Quabbin lives up to its name that comes from the Nipmuck Indian word meaning “great waters.”

The Quabbin Reservoir spans over thirty-nine square miles and is approximately eighteen miles long. 58,000 acres of public forestland surround and protect the watershed. In fact, the forestland around the watershed is the largest intact block of forestland in Massachusetts. This is why the Quabbin is sometimes referred to as “an accidental wilderness.” The combination of the great forest and limited human access to the area contribute to the opinion that the Quabbin is “a symbol of what things across [the United States] would have looked like if the Mayflower never landed.”

The Quabbin Reservoir’s importance in supplying drinking water to Massachusetts residents has forced the Massachusetts Department of Conservation and Recreation to prohibit the Reservoir’s visitors from participating in any activity with the potential to harm the quality of the

2. Id.
water. For example, to preserve the reservoir’s water quality, visitors of the Quabbin Reservation and watershed are not allowed to swim, ice fish, ice skate, canoe, kayak, or build fires at the reservoir. Some recreational activities, like fishing, are allowed in certain parts of the watershed; however, they are strictly regulated.

The Massachusetts drinking water system relies on the Quabbin for its drinking water. In fact, almost half of the water in the Wachusett Reservoir arrives from the Quabbin. The system functions so that water leaves the Quabbin through the Quabbin Aqueduct and flows into the Wachusett Reservoir. From the Wachusett Reservoir, the water travels through the Cosgrove Tunnel to Marlborough, Massachusetts, where the Hultman Aqueduct transports the water to the Boston area. In this way, the Quabbin is at the core of the entire drinking water system.

The Massachusetts Water Resources Authority ("the Water Authority") governs the Quabbin and treats much of the drinking water in Massachusetts. The Water Authority has been responsible for delivering and distributing water to approximately forty-six communities in the Boston metropolitan area since 1895. The Water Authority currently has licensed treatment operators that treat the drinking water from the Quabbin and Wachusett Reservoirs in accordance with stringent federal and state regulations. Both the Quabbin and the Wachusett Reservoirs are kept clean through the natural filtration system that the watersheds provide. Specifically, water that comes from rain and snow is cleaned through its contact with plants, rocks, and soil before it flows into the reservoir.
Massachusetts Department of Conservation and Recreation also tests and patrols the watersheds on a daily basis.\footnote{22} Between 2007 and 2010, timber loggers began harvesting and clear-cutting trees in the forestland around the Quabbin.\footnote{23} In particular, the loggers clear-cut large areas very close to the water’s edge.\footnote{24} Timber logging has the potential to degrade water quality and therefore poses a risk to the Quabbin.\footnote{25} Logging at the Quabbin caused public outcry and as a result, Massachusetts Governor Deval Patrick placed a temporary moratorium on new logging contracts at the Quabbin in 2010.\footnote{26} However, preexisting logging contracts were not affected by the moratorium.\footnote{27} The Massachusetts Department of Conservation and Recreation’s current Forest Management Plan allows logging of up to twenty-five percent “of the subwatershed forest cover in any given ten-year period.”\footnote{28} The temporary moratorium will soon be up for review and so the question remains: Should Massachusetts permanently ban commercial logging at the Quabbin?

This note analyzes the controversy over logging at the Quabbin and discusses the consequences Massachusetts might face if it allows the logging to continue. Section I discusses the history and current condition of the Massachusetts Public Drinking Water System. Section II discusses the laws governing the commercial logging issue and the past litigation over forcing Massachusetts to install a filtration system for the Wachusett Reservoir. Section III discusses the risks of timber logging in a forested watershed and how this type of logging can impact the waters of the Quabbin, and in turn, the entire Massachusetts drinking water system. This note concludes by suggesting that the Massachusetts government should permanently ban commercial logging at the Quabbin.

I. History and Overview of the Massachusetts Drinking Water System

\footnote{22}{Id.}
\footnote{23}{Matera, supra note 6, at 7.}
\footnote{24}{Id.}
\footnote{27}{Id.}
A. Summary of Boston’s Early Drinking Water Supply

Prior to the year 1795, Boston’s drinking water came mainly from underground wells and rainwater collected in cisterns. 29 The Boston Common, a park in the center of the city, also provided a spring with drinking water that Boston residents frequently used. 30 Unfortunately, the quality of this water was extremely poor and many people became sick from drinking it. 31 These resources also became less adequate as the city became more populated. 32

In 1795, the Aqueduct Corporation obtained a charter from the Massachusetts General Court to supply Boston with drinking water from the Jamaica Pond. 33 Through this new water system, drinking water traveled from Jamaica Pond to the city of Boston through wooden pipes made from tree trunks. 34 Although the Jamaica Pond system was initially successful, it became inadequate during the mid-1800s when Boston’s population continued to expand and Jamaica Pond became polluted. 35 Furthermore, several fires broke out during this period and could not be contained because the water system lacked sufficient delivery capacity. 36 With these new problems, the city of Boston realized that it needed to find a new water source.

The Cochituate Board began constructing the Cochituate Water System in 1846 to meet Boston’s high water supply demands. 37 The Board seized the Sudbury River to create Lake Cochituate, a seventeen-mile watershed with the capacity to hold two billion gallons of water. The Cochituate Aqueduct transported water from Lake Cochituate to the Brookline Reservoir, which had lead cast iron pipelines that connected to small distribution reservoirs in different parts of the Boston area. 38

The Cochituate system was a huge success that cost approximately four million dollars to build. 39 When the Cochituate System was completed in 1848, the city of Boston celebrated by declaring a holiday and hosting a ceremony on the Boston Common. 40 The completion of the Cochituate

29. NESSON, supra note 4, at 1.
31. NESSON, supra note 4, at 1.
32. Id.
33. Id.
34. Metropolitan Boston’s Water System History, supra note 18.
35. Id.
36. Id.
37. NESSON, supra note 4, at 6.
38. Id.
39. Id.
40. Id. at 7.
Water System marked two significant accomplishments for the city of Boston. First, Boston never again experienced a water shortage. Second, Boston did not experience any epidemics of disease because the city eliminated problems with the transmission of typhoid, cholera, and typhus bacilli by purifying its drinking water source. In this way, the completion of the Cochituate System marked a new era for Boston’s drinking water.

B. The Construction of Boston’s Current Water System

1. The Wachusett Reservoir

Boston’s population expanded significantly between the late 1840s and the 1890s, likely as a result of immigration. At this time, indoor plumbing was becoming common, and the city once again had to face the issue that its water supply was no longer meeting the demands of the city’s population. The Metropolitan District Commission considered many out of state water sources in northern New England in its search for a new drinking water supply before deciding to build the Wachusett Reservoir in central Massachusetts. The state had to flood areas in four different towns during the construction. At the time that it was built, the Wachusett Reservoir was the largest public water reservoir in the world.

The Wachusett Reservoir had many benefits to offer the city of Boston. Primarily, the construction of the water system was the easiest means of expanding the city’s current water supply because it only required connecting the new water supply to previously existing water pipes. Furthermore, the Wachusett Reservoir’s water quality was excellent because the Commission designed it to be a very large and deep reservoir and purchased the watershed around it to ensure purity. This allowed Massachusetts to avoid installing filtration for the reservoir, which was an important consideration at this time because filtration was a new technique and the technology that it involved could easily malfunction and create problems. The construction of the Wachusett was also somewhat inexpensive because it was so large that multiple communities shared the

41. Id. at 8.
42. Id.
43. Metropolitan Boston’s Water System History, supra note 18.
44. Id.
45. Id.
46. Id.
47. Id.
48. NESSON, supra note 4, at 32.
49. Id.
50. Id.
costs and thus Boston did not have to bear the burden of paying for the system alone.\textsuperscript{51} Lastly, the Wachusett system depended on dams and aqueducts rather than machinery and therefore would have a “long useful life” with a value that would not depreciate.\textsuperscript{52}

2. Overview of the Quabbin Reservoir

a. Early Settlement of the Swift River Valley and Construction of the Quabbin

Prior to the European Settlement of the United States, the area that is now the Quabbin was simply a “low valley cut by a river.”\textsuperscript{53} Specifically, the Quabbin Reservoir is located in the former Swift River Valley.\textsuperscript{54} Europeans first settled in the Swift River Valley around the year 1754.\textsuperscript{55} By the time of the industrial revolution, the valley had between two and three thousand residents spread throughout four towns: Dana, Enfield, Greenwich, and Prescott.\textsuperscript{56}

Despite World War I’s delay on the population growth in Massachusetts, Boston realized that it would need a new water supply by the 1930s.\textsuperscript{57} The Commission searched westward for new water sources and landed in the Swift River Valley in the early 1900s.\textsuperscript{58} The Swift River Valley’s landscape made it an ideal location for a water reservoir.\textsuperscript{59} Moreover, the state had the “budgetary and technical capabilities” to build tunnels and aqueducts that would connect the reservoir to the previously existing water storage and distribution networks.\textsuperscript{60} In this way, the Swift River Valley was the perfect location for a reservoir.

The Quabbin Reservoir’s construction required the relocation of six town boundaries and eliminated the four towns in the Swift River Valley.\textsuperscript{61} The reservoir displaced approximately 2,500 residents of the valley who were forced to sacrifice their homes for the greater good of the people of

\begin{itemize}
  \item \textsuperscript{51} Id.
  \item \textsuperscript{52} Id.
  \item \textsuperscript{53} Haunting the Quabbin: Inside Out, supra note 8.
  \item \textsuperscript{55} DIZARD, supra note 9, at 5.
  \item \textsuperscript{56} Id. at 6.
  \item \textsuperscript{57} Id. at 36.
  \item \textsuperscript{58} Id. at 38.
  \item \textsuperscript{59} Id. at 6.
  \item \textsuperscript{60} Id.
  \item \textsuperscript{61} Metropolitan Boston’s Water System History, supra note 18.
\end{itemize}
Massachusetts.\textsuperscript{62} Many of these residents were extremely angry over losing their homes and felt that they were simply “thrown out” and forced to give up everything they knew by a “political machine” in Boston.\textsuperscript{63} Although the residents first learned of the state’s plans to build a reservoir about thirty years before the construction began, many did not believe that they would actually lose their homes.\textsuperscript{64}

In April of 1927, the Massachusetts legislature passed the Swift River Act, which provided funding for the construction of the Quabbin.\textsuperscript{65} As a result, the residents of the Swift River Valley began to face the fact that they needed to find new homes.\textsuperscript{66} Although the state compensated the residents of the towns for their property, many residents felt that they were “short-changed” and not given enough money because they had no option not to sell.\textsuperscript{67} By the spring of 1938, the population of the Swift River Valley had dwindled to only a few hundred.\textsuperscript{68} On April 27, 1938, the town of Enfield hosted a “Farewell Ball” at the town hall to celebrate the last night before the town ceased to exist.\textsuperscript{69} The state began filling the valley on August 14, 1939, and continued until the reservoir was completed in 1946.\textsuperscript{70} The Reservoir filled to capacity at approximately 412 billion gallons.\textsuperscript{71}

\subsection{b. The Present State of the Quabbin}

Since 1928, the state has closely monitored the land around the Quabbin to provide as much buffer, filtration, and insulation from human activity as possible.\textsuperscript{72} The layout of the Massachusetts drinking water system leaves the forest surrounding the Quabbin as the first barrier to pollution at the water supply’s source.\textsuperscript{73} In 1998, the Commission designed and implemented a plan to restructure the forest and in turn enhance the watershed’s protection.\textsuperscript{74} The Quabbin is the only reservoir of its size that

\begin{footnotesize}
\begin{enumerate}
\item[62.] \textit{Haunting the Quabbin: Inside Out}, supra note 8.
\item[63.] Id.
\item[64.] Id.
\item[65.] Cosgrove, supra note 54.
\item[66.] \textit{Haunting the Quabbin: Inside Out}, supra note 8.
\item[67.] Id.
\item[68.] Id.
\item[69.] Id.
\item[70.] \textit{Metropolitan Boston’s Water System History}, supra note 18.
\item[71.] Id.
\item[72.] \textit{DIZARD}, supra note 9, at 4.
\item[74.] Id.
\end{enumerate}
\end{footnotesize}
does not require filtration because the forest’s hydrology prevents sediment and other uninvited elements from reaching the water. Furthermore, the water in the reservoir remains pure because there are no large populations or industrial centers nearby, nor along the streams that flow into the reservoir. The Department of Conservation and Recreation manages the forest area with the purpose of preventing water erosion, which would wash silt into the reservoir.

The development of Massachusetts’ current drinking water system began in 1795 and was not completed until the Quabbin filled to capacity in 1946. Because the state purposely designed the Quabbin to not require filtration, the state must consistently monitor and regulate the reservoir to ensure that the water maintains its purity. The combination of the regulation of the Quabbin’s water and its natural seclusion from human activity allows it to remain an accidental wilderness.

II. THE PUSH FOR FILTRATION UNDER THE SAFE DRINKING WATER ACT

A. The Need for Regulation

The public depends on its drinking water suppliers to maintain clean and safe drinking water. As a result, the Safe Drinking Water Act and the Surface Water Treatment Rule collectively require water suppliers to filter water before it reaches consumers. In order to bypass filtration, a water system must meet certain avoidance criteria, which is difficult to do. For example, avoidance criteria include, but are not limited to, sustaining a watershed control program, identifying and monitoring activities that could have a negative effect on water quality, and allowing on-site inspection and access to both the watershed control program and disinfection treatment process. Consequently, after the Surface Water Treatment rule was enacted,
many public water suppliers were forced to choose between meeting these avoidance criteria and building expensive filtration systems.  

1. Safe Drinking Water Act

Congress passed the Safe Drinking Water Act ("the Act") in 1974 to safeguard public health by regulating the country’s public drinking water supply. The Act allows the Environmental Protection Agency ("EPA") to establish drinking water standards to protect against both man-made and natural pollutants. The Act applies to all above ground and underground water sources that could potentially be used for drinking water. The legislature amended the Act in 1986 and 1996 to reflect necessary actions to protect drinking water and its sources including rivers, lakes, reservoirs, springs, and ground water wells. The 1986 Amendment was a result of Congress’s decision that filtration is the best method for removing bacterial and viral pollutants from water. Under the Act, the EPA sets minimum guidelines for states to defend underground drinking water sources from contamination by underground injection of fluids. The 1996 Amendments to the Act relaxed the filtration avoidance criteria for water systems “having uninhabited, undeveloped watersheds in consolidated ownership, and having control over, access to, and activities in, those watersheds” if a state decides that different methods of treatment will remove a higher number of pathogens from drinking water than filtration will.

83. See id. at 569 (explaining that Surface Water Treatment Rule requires approximately “10,000 water supply systems install improve their filtration systems at a cost of [three billion dollars]”).
85. Id.
86. Id.
87. Id.
89. Summary of the Safe Drinking Water Act, supra note 84; see Ground Water Discharges, ENVTL. PROT. AGENCY, http://www.epa.gov/region1/eco/drinkwater/pc_groundwater_discharges.html (last updated Dec. 12, 2012) (articulating that "underground injection of fluids" occurs when underground wells discharge wastes that could flow into an underground drinking water source).
2. Surface Water Treatment Rule

Under the Safe Drinking Water Act, the EPA is allowed to dictate the criteria by which a public water supplier must filter its drinking water.91 To meet these criteria, the EPA developed the Surface Water Treatment Rule ("the Rule") in 1989.92 The Rule seeks to prevent waterborne diseases caused by viruses such as *Giardia lamblia*.93 The Rule requires water systems to filter and disinfect water from surface water sources to decrease the prevalence of unsafe levels of these microbes.94

The EPA intended the Surface Water Treatment Rule to be "self-implementing" in that it required water systems that did not meet the filtration avoidance criteria to install filtration treatment facilities by June 29, 1993.95 However, a water system could receive a filtration waiver if it proved that it met eleven necessary avoidance criteria under 40 C.F.R. § 141.71(a) and C.F.R. § 141.71(b).96 First, the avoidance criteria listed in 40 C.F.R. § 141.71(a) dictate that the water’s fecal coliform concentration must have no more than twenty colony-forming units per 100 milliliters during any six-month period.97 Second, the turbidity level of the water cannot exceed five nephelometric turbidity units in samples taken prior to the first point of disinfection.98 C.F.R. § 141.71(b) lists four separate criteria to establish minimum levels of disinfection for a water supply and five additional criteria involving the watershed protection and systems operations.99 If a water system met the avoidance criteria after the Rule was implemented but then later fell out of compliance, it had to begin filtration within eighteen months from the date of noncompliance.100 The EPA issued internal guidance in 1992 that allowed state enforcement agencies to have discretion to defer a final filtration determination if it appeared that a water

93. See id. § 141.71(b)(2) (stating that watershed control programs must minimize the potential for *Giardia lamblia* in water sources).
95. Summary of the Safe Drinking Water Act, supra note 84.
98. 40 C.F.R. § 141.71(a)(1).
system could bring itself into compliance with the avoidance criteria through immediate measures.\(^{101}\)

### B. Conflict over Filtration

The issue of filtration of the Wachusett Reservoir was a constant subject of litigation after Congress passed the Surface Water Treatment Rule. In 1991, the Massachusetts Water Resources Authority’s (“Water Authority”) Board of Directors determined that the Wachusett would not be able to meet the required filtration avoidance criteria under C.F.R. § 141.71(a).\(^{102}\) Consequently, on January 24, 1992, the Massachusetts Department of Environmental Protection ordered the Water Authority to provide filtration and disinfection treatment for the reservoir by June 30, 1993.\(^{103}\) Following this determination, the Massachusetts Department of Environmental Protection and the Water Authority negotiated an Administrative Consent Order (“the Order”) to bring Massachusetts into compliance with the Surface Water Treatment Rule.\(^{104}\) Under the Order, the Water Authority and the Commission were required to prepare a Watershed Protection Plan for the Wachusett Reservoir and take actions needed to bring the system into compliance with the filtration avoidance criteria.\(^{105}\) The Order also contained a reopener clause that allowed the Water Authority to pursue a “redetermination of filtration avoidance” by August 3, 1998, which set a deadline for compliance.\(^{106}\) Meanwhile, the Massachusetts Department of Environmental Protection required the Water Authority to take steps to install a filtration and disinfection treatment facility for the Wachusett Reservoir by December 31, 2001, in the case that the avoidance strategy was unsuccessful.\(^{107}\) The EPA expressed that it was not bound by the Order, but it still allowed the Water Authority to prove that it could meet the necessary avoidance criteria by the August 1998 deadline.\(^{108}\)

In early 1997, the EPA expressed concerns that the Water Authority was not meeting the deadlines of the Order.\(^{109}\) On October 1, 1997, the Water Authority and the Commission filed their request for a

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\(^{101}\) Id.
\(^{102}\) Id.
\(^{103}\) Id.
\(^{104}\) Id.
\(^{105}\) Id. at 65.
\(^{106}\) Id. at 69.
\(^{107}\) Id.
\(^{108}\) Id.
\(^{109}\) Id. at 70.
redetermination of filtration avoidance.\footnote{110} On December 9, 1997, the EPA Regional Administrator wrote a letter to the Massachusetts Department of Environmental Protection and the Water Authority stating that the EPA requested that the Department of Justice file an enforcement action because the Water Authority failed to meet the filtration avoidance criteria by December 1, 1991.\footnote{111}

On February 12, 1998, the United States sued the Water Authority and the Commission on behalf of the EPA. The EPA alleged violations of the Safe Drinking Water Act and Surface Water Treatment Rule because the Water Authority did not filter the Wachusett Reservoir.\footnote{112} It sought injunctive relief in the form of an order requiring the Water Authority to construct a filtration plant to treat water that it sources from the Wachusett Reservoir to supply customers in the metropolitan Boston area.\footnote{113}

The court permitted preliminary discovery but also waited on the Massachusetts Department of Environmental Protection’s decision on the Water Authority’s request for an avoidance determination.\footnote{114} On November 13, 1998, the Department of Environmental Protection determined that the Water Authority’s water system met the necessary avoidance criteria.\footnote{115} Despite this determination, the fecal coliform concentrations in the water at the Cosgrove Intake of the Wachusett Reservoir surpassed twenty coliform colony-forming units per 100 milliliters of water in more than ten percent of measures taken in the six-month period ending in January of 1999 and thus violated C.F.R. § 141.71(a).\footnote{116}

The Water Authority conceded that it violated C.F.R. § 141.71(a); however, it argued that its methods of treating its water were a cost-efficient alternative to filtration.\footnote{117} The United States District Court for the District of Massachusetts granted the EPA’s motion for partial summary judgment, holding that Massachusetts was in violation of the Surface Water Treatment Rule.\footnote{118} However, the court denied the EPA’s request for an injunction, holding that an injunction was not warranted.\footnote{119} The court rejected the EPA’s argument that there was no alternative other than to force the Water Authority to filter its drinking water and held that the Safe

\footnote{110} Id.
\footnote{111} Id.
\footnote{112} Id. at 66.
\footnote{113} Id.
\footnote{114} Id. at 70.
\footnote{115} Id.
\footnote{116} Id.
\footnote{117} Id. at 66.
\footnote{118} Id. at 72.
\footnote{119} Id.
Drinking Water Act is broad and does not force a court to limit itself to “mechanical enforcement of EPA compliance orders.” The court remanded on the issue of whether the Water Authority’s alternative strategies for keeping its drinking water clean better served Congress’s objective of “providing maximum feasible protection of the public health” than filtration.

The EPA petitioned for interlocutory review of the court’s decision, which the court of appeals denied. The district court then held twenty-four days of evidentiary hearings to weigh the EPA’s request for an injunction against the Water Authority’s alternatives to filtration. During these hearings, the Water Authority argued that its methods for treating its water with ozone, paired with aggressive watershed protection and an accelerated program to replace aging pipes, was more cost-effective than filtration. The Water Authority also argued that installing a filtration system would lessen public support for the Watershed Protection Plan and would pressure the state to allow general recreational use at its watersheds, which would pose a grave risk to water quality. The court considered both the opposing demands for limited resources and the risk from all potential threats to the safety of the state’s drinking water and determined that the Water Authority’s methods of treating its water provided a good alternative to filtration. Accordingly, the court denied the EPA’s request for an interim order for injunctive relief. The court also ordered that the Water Authority give notice of any future violations of the avoidance criteria and retained jurisdiction for the limited purpose of deciding whether an injunction would be warranted at some future date.

The EPA appealed the district court’s refusal to grant injunctive relief to the United States Court of Appeals for the First Circuit. Specifically, the EPA argued that under the Safe Drinking Water Act, the court does not have any discretion to withhold filtration indefinitely as long as the plaintiff proves a public water system has violated a substantive requirement of the Act. The First Circuit rejected this argument and affirmed the district court’s decision, holding that the court exercised its equitable discretion to...
further the substantive purposes of the Safe Drinking Water Act.\textsuperscript{131} The First Circuit reasoned that the district court acted within the scope of its authority with respect to the Act at issue.\textsuperscript{132}

\textbf{C. The Dangers of Logging in Light of the Litigation over the Wachusett Reservoir}

The controversy between the Water Authority and the Environmental Protection Agency EPA sheds light on the issue of commercial logging at the Quabbin because the court’s decision rested on the Water Authority’s continuing ability to maintain the purity of its water system.\textsuperscript{133} Because the Quabbin supplies approximately half of the water in the Wachusett, the high quality of the Quabbin was a significant factor leading to this decision.\textsuperscript{134} In fact, the district court expressly stated that “[t]here are no issues affecting the quality of the Quabbin Reservoir” as one of the factors leading to its decision.\textsuperscript{135} In this way, the quality of the Quabbin is an integral part of the overall quality of the entire water system.

Unlike the water in the Wachusett Reservoir, the water in the Quabbin Reservoir has continually met the EPA’s filtration avoidance criteria and has not been subject to the same type of litigation.\textsuperscript{136} Accordingly, the EPA and the Massachusetts Department of Environmental Protection granted the Quabbin a filtration waiver in January of 1992.\textsuperscript{137} The Division of Water Supply Protection of the Massachusetts Department of Conservation and Recreation manages the Quabbin and the surrounding area to preserve its excellent quality.\textsuperscript{138} To remain in compliance with its filtration waiver, the Water Authority monitors the bacterial quality of Quabbin Reservoir water at a point prior to disinfection on a daily basis.\textsuperscript{139}

The dangers that logging may lower the Quabbin’s water quality in light of a potential filtration lawsuit are numerous. If commercial logging compromises the quality of the Quabbin, the quality of the Wachusett will

\begin{footnotesize}
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\item \textsuperscript{131} Id. at 58.
\item \textsuperscript{132} Id.
\item \textsuperscript{133} See Mass. Water Res. Auth., 97 F.Supp.2d at 187 (articulating that the Massachusetts water system is “of continuing improvement” and that the Water Authority has effectively prevented contamination of the water).
\item \textsuperscript{134} See id. at 170 (stating that half of the water in the Wachusett comes from the Quabbin).
\item \textsuperscript{135} Id. at 188.
\item \textsuperscript{137} Mass. Water Res. Auth., 97 F.Supp.2d at 177.
\item \textsuperscript{138} WATER QUALITY REPORT: 2011, supra note 136, at 13.
\item \textsuperscript{139} Id.
\end{enumerate}
\end{footnotesize}
also be compromised. Because the court expressly retained jurisdiction on the issue of filtration, it could choose to revisit the issue if the water system’s overall quality is lowered. Consequently, if the state continues to allow logging at the Quabbin and the system’s water quality is lowered, the court can require the Water Authority to implement a costly filtration system for the Wachusett and the Quabbin.

In addition to its cost, implementing a filtration system for its water reservoirs will cause further difficulty to the state of Massachusetts in regulating activity and restricting access to the Quabbin.\textsuperscript{140} As a natural wilderness, the Quabbin is an ideal location for those interested in recreational activities such as hunting, fishing, sailing, swimming, and cross-country skiing.\textsuperscript{141} However, the state placed heavy restrictions on these activities to protect the Quabbin’s water quality and preserve the wildlife in the watershed.\textsuperscript{142} Without the water quality motivation, the state will likely have a difficult time restricting access to the Quabbin and balancing the interests of the recreationalists and environmentalists.\textsuperscript{143} For these reasons, the state should be extremely hesitant to allow any activity that might harm the Quabbin’s water quality.

III. COMMERCIAL LOGGING AND THE WATERSHED PROTECTION ACT

A. Overview of the Commercial Logging Controversy

Environmentalists and foresters consistently disagree over the harms and benefits of timber logging and the best way to manage a forest.\textsuperscript{144} Most environmentalists see timber logging as a “human-caused disturbance” that poses a significant threat to water quality.\textsuperscript{145} In contrast, foresters believe that timber harvesting can provide many benefits, including but not limited to: maintaining forest health and resiliency, controlling damage by natural causes, reducing the risk of wildfires, and improving the habitat for animals.\textsuperscript{146} Moreover, commercial harvesting provides economic benefits as the wood products and paper manufacturing sector employ approximately

\begin{thebibliography}{99}
\bibitem{140} Dizard, supra note 9, at 13.
\bibitem{141} Id.
\bibitem{142} Id.
\bibitem{143} Id. at X.
\bibitem{144} Rice et al., supra note 25, at 321.
\end{thebibliography}
900,000 individuals. 147 Both of these views bring important perspective to the issue of commercial logging at the Quabbin. Therefore, Massachusetts should weigh all of these factors in light of the situation at the Quabbin and come to a conclusion about commercial logging that is for the greater good of the state and its people.

The general consensus from the environmental perspective is that commercial logging has more risks than benefits. 148 First, forestry procedures can lower several water quality factors in watersheds if the procedures are not performed with sufficient controls. 149 Second, vehicles that access and move machinery used in logging can cause soil compaction, soil disturbance, and direct disturbance of stream channels. 150 In sum, logging operation planning, soil and cover type, and slope are extremely significant factors that influence the impacts of timber harvesting on water quality. 151 Environmentalists are particularly opposed to clear-cutting, which is a particular type of timber logging that involves “the removal of all trees from a given tract of forest.” 152 Environmentalists view clear-cutting as “an ecological tragedy” because it can destroy an area’s ecological integrity. 153 In this way, environmentalists generally feel that there is really no value to clear-cutting. 154

The rationale supporting timber harvesting is based on the approach of preventing damage to forests from natural disturbances. 155 Essentially, forests are at risk for two main types of natural disturbances: various types of windstorms and outbreaks of pests and pathogens. 156 Many experts believe that using timber harvesting as a preemptive method will enable the forests to become more resilient to storms and in turn lessen the damage to forests when these disturbances occur. 157 Therefore, many foresters believe that preemptive harvesting is necessary to ensure the viability of forests.

147. Id. at 3.
150. Id. at 2–3.
151. Id. at 2–18.
153. Id.
154. Id.
155. Foster & Orwig, supra note 148, at 960.
156. Id.
157. Id.
In 2007, the Department of Conservation and Recreation implemented a new logging plan that allowed for more logging at the Quabbin. The goal of the plan was to create “a mosaic of diverse size, age and species of trees to enhance the watershed's resistance and resilience to disturbances, including wind, snow and ice, diseases, insects and climate change.” In this way, the plan caters to the forester view of preemptive logging. The plan permits logging on 47,000 out of the 58,000 acres of forestland around the Quabbin. As a result of the new logging plan, loggers began to cut more aggressively and clear-cut close to the waters’ edge.

Supporters of the logging plan at the Quabbin believe that it is adequately regulated and beneficial to the forest. For example, Chester S. Lubelczyk, who cuts down firewood in the Quabbin for a living, explained to a local newspaper that the logging at the Quabbin has adequate controls as the Department of Conservation and Recreation strictly regulates when and where loggers can cut. Specifically, Mr. Lubelczyk stated that the regulations are “more intense” than ever:

You cut only the trees that are marked, use only the landing sites designated, only the equipment prescribed. You don't leave any gas cans lying around and nothing better be leaking oil. If the roads to your lot are muddy, you don't cut. If it's raining you don't cut. I've been doing this for [twenty] years and they still check on me frequently.

Despite this regulation, Mr. Lubelczyk acknowledged that although his work consisted of “mostly thinning stands of hardwoods” at one time, his most recent tasks have involved clear-cutting areas of up to two acres. Furthermore, forestry officials admitted that in addition to violating “their own rules,” they did not sufficiently inform the public about the scope of their harvesting.

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158. Matera, supra note 6, at 7.
159. Miner, supra note 7, at 2.
160. Id.
161. Id.
162. See Matera, supra note 6, at 7–9 (showing pictures of areas where clear cutting occurred, including an aerial view of the Prescott Peninsula of the Quabbin).
163. Miner, supra note 7, at 1.
164. Id.
165. Id.
Jonathan Yeo, the director of the Department of Conservation and Recreation’s Division of Water Supply Protection, defended the forester’s clear-cuts under a preemptive harvesting rationale. Mr. Yeo argued that the cuts create sunny areas that can rapidly regenerate a “diverse forest” and in turn help a range of plant and animal species thrive and better withstand storms and pests.\textsuperscript{167} While preemptive harvesting is a logical way to preserve forests, forests in New England do not often have outbreaks of pests that “lead to large accumulations of hazardous fuels” such as forests in the western or southern parts of the country.\textsuperscript{168} Moreover, preemptive harvesting in preparation for natural disturbances can sometimes have a greater impact on a forest ecosystem than the actual disturbance.\textsuperscript{169} Furthermore, there is only a relatively low risk of wind disturbances leading to wildfires in the northeast.\textsuperscript{170} For these reasons, refraining from preemptive harvesting seems to be the best approach to managing forests in New England.

\textbf{B. The Watershed Protection Act as Applied to Commercial Logging at the Quabbin}

The Massachusetts Watershed Protection Act governs watersheds in Massachusetts. Specifically, the Act restricts land use and activities within the Quabbin Reservoir, Wachusett Reservoir, and Ware River watersheds.\textsuperscript{171} The Watershed Protection Act provides that “[a]ny alteration, or the Generation, Storage, Disposal or Discharge of Pollutants is prohibited within [certain] portions of the Watershed.”\textsuperscript{172} The Act further provides a number of definitions for “alteration,” including “draining, dumping, dredging, damming, discharging, excavating, filling, or grading” and “the construction or reconstruction or paving of roads and other ways.”\textsuperscript{173} In sum, the Watershed Protection Act controls activities and land use within important areas of the Massachusetts watersheds with the intention of protecting drinking water quality.\textsuperscript{174} Accordingly, the Act

\begin{footnotesize}
\begin{enumerate}
\item[167.] \textit{Id.}
\item[168.] Foster & Orwig, \textit{supra} note 148, at 966.
\item[169.] \textit{Id.}
\item[170.] \textit{Id.} at 967–68.
\item[172.] 350 MASS. CODE REGS. 11.04(3) (1994).
\item[173.] 350 MASS. CODE REGS. 11.03 (1994).
\item[174.] Energy and Envtl. Affairs, \textit{The Watershed Protection Act}, MASS. DEPT. OF CONSERVATION AND RECREATION,
\end{enumerate}
\end{footnotesize}
applies only in cities and towns located within the watersheds and only to lands “which are near specific water features in those communities.”

The Watershed Protection Act seeks to protect drinking water quality by “establishing two buffer zones around hydrologic resources.” The two buffer zones the Act covers are the Primary Protection Zone and the Secondary Protection Zone. The Primary Protection Zone is the area within 400 feet of a reservoir’s shoreline. The Secondary Protection Zone is the area between 200 and 400 feet from surface waters and tributaries, “on land within flood plains, over some aquifers and within bordering vegetated wetlands.” The Watershed Protection Act prohibits all physical alteration of land in the Primary Protection Zone, while the Secondary Protection Zone allows some physical alteration of land but prohibits any alterations “which pose a high risk of degrading water quality.” Because timber logging both alters the watershed and has the potential to endanger water quality, the Watershed Protection Act suggests that commercial loggers should not be able to harvest trees within the protection zone of the Quabbin.

The Watershed Protection Act is strictly enforced and has been a source of controversy for Massachusetts land-owners wishing to make changes to their shore front property. In 2000, Massachusetts sued Clealand and Nancy Blair for violations of the Watershed Protection Act because the defendants performed expansion work on their waterfront property on Demond Pond, a water source that flows into the Quabbin. Specifically, the defendants enlarged their lawn; enlarged the shoreline opening of their beach from at least sixty feet to 120 feet; cleared trees from their property’s shorefront area; excavated, filled, and removed twelve inches of topsoil and subsoil from their beach area; placed twelve additional inches of sand on their beach area; placed a retaining wall of seventy-five to eighty-five feet long and at least thirty inches in height on their property, and placed a three-foot-long brick walk through their lawn area. The court determined the defendants’ modifications to their property constituted “alterations” within

176. Id.
177. Id.
178. Id. at 3.
179. Id.
180. Id. at 1.
181. See RICE ET AL., supra note 25, at 321.
183. Id. at 2.
the meaning of the Watershed Protection Act. The court explained that the Watershed Protection Act “is a flat prohibition on certain activities and conditions within a certain distance from a watershed.” Because the defendants’ alterations were within 200 feet of the waters’ edge, the court held that they violated the Watershed Protection Act and ordered an injunction requiring them to restore the property to its original condition.

This case demonstrates the court’s interpretation that the Watershed Protection Act is a “flat prohibition” on certain activities within a certain distance of a watershed. Therefore, how is it that Massachusetts can allow commercial logging within feet of the surface of the Quabbin Reservoir while it does not allow property owners to alter their property located on a water supply that flows into the Quabbin? The direct answer to this question is that the Watershed Protection Act should prohibit all commercial logging within the specified protection zones of the reservoir.

It is somewhat unclear as to how Massachusetts allowed logging and clear-cutting at the Quabbin in the first place. One theory is this type of logging was only able to take place because the general public was unaware that it was happening. Consequently, once the public became aware of the problem and environmental groups and the media became involved, Governor Patrick responded quickly by placing a moratorium on logging. Indeed, after public outcry on the issue, the state put 185,000 acres and sixty percent of the state’s total public forestland off limits to logging. Furthermore, state forests are currently classified as “parklands, reserves and woodlands,” where commercial logging is restricted or prohibited and clear-cutting more than one third of an acre requires a public approval process. In this way, the public attention on this issue certainly made a difference in the way Massachusetts manages its forests. Because Massachusetts was making money from commercial logging through timber sales, another answer to how the clear-cutting has happened is that “the foxes are guarding the watershed henhouse” and turning a blind eye to the logging due to the profit coming out of it. The moratorium is currently still in place; however, it seems as though the state intends to restart the

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184. Id. at 4.
185. Id. at 5.
186. Id. at 23.
187. Id. at 5.
188. Email from Christopher Matera, Founder of Massachusetts Forest Watch (Nov. 19, 2012, 9:47pm EST) (on file with author).
190. Miner, supra note 7, at 1.
191. Id.
192. Id.
logging program in the future. An advisory panel has been working on the issue but “almost completely behind closed doors.”

CONCLUSION

Massachusetts needs to ban logging at the Quabbin Reservoir permanently in order to safeguard its public drinking water system. The Quabbin is a unique water source that is greatly protected by the forest around it, and harvesting the trees in the forest has a greater risk of harm than benefits. If Massachusetts does not ban commercial logging permanently, it risks both harming its water system and facing dire financial consequences if the court decides to revisit the prior filtration lawsuit in the future. Moreover, logging within the protected zones of the Quabbin is flatly prohibited by the Watershed Protection Act. Therefore, the state needs to permanently ban commercial logging and allow the forest to remain as the first barrier to pollutants.

193. Email from Christopher Matera, supra note 188.
194. Id.
RE-STITCHING THE URBAN FABRIC: MUNICIPAL-DRIVEN REHABILITATION OF VACANT AND ABANDONED BUILDINGS IN OHIO’S RUST BELT

By Elizabeth M. Tisher*

Introduction.................................................................................................................. 174

Part I: Urban Decline in the United States ............................................................... 175
   A. History of Urban Decline................................................................................. 175
   B. Rise in Vacant Buildings .............................................................................. 177
   C. Impact of Vacant and Abandoned Buildings ............................................. 179
   D. Impacts of Demolition .................................................................................. 180
   E. Foreclosures and the Subprime Mortgage Crisis ....................................... 182

Part II: Cincinnati’s Efforts to Eradicate Vacant and Abandoned Buildings 183
   A. Vacated Building Maintenance License ....................................................... 183
   B. Hazard Abatement Program ........................................................................ 189
   C. Neighborhood Stabilization Program .......................................................... 195
   D. Land Reutilization Corporation .................................................................. 198

Part III: Implementing Aggressive Municipal-Driven Rehabilitation Legislation .................................................................................................................. 201
   A. Comprehensive Vacant Building Registration Program .......................... 201
   B. Expanding the Public Nuisance Doctrine to Allow for Early Municipal Intervention ........................................................................................................... 204
   C. Using Eminent Domain to Acquire and Rehabilitate Vacant and Abandoned Buildings ......................................................................................................... 211

Conclusion .................................................................................................................. 223

"Root shock, at the level of the local community, be it neighborhood or something else, ruptures bonds, dispersing people to all the directions of the compass. Even if they manage to regroup, they are not sure what to do with one another. People who were near are too far, and people who were far are too near. The elegance of the neighborhood—each person in his

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social and geographic slot—is destroyed, and even if the neighborhood is rebuilt exactly as it was, it won’t work. The restored geography is not enough to repair the many injuries to the mazeway.”

“The howl of pain that went up with the first bulldozer has grown and deepened, as people begin to understand . . . what it meant to lose the lower half of our body.”

“[L]ively, diverse, intense cities contain the seeds of their own regeneration . . . .”

INTRODUCTION

Current demographic trends indicate a renewed interest in urban living, as climate change, high gas prices, and the tedium of suburban sprawl have compelled both young and old alike to seek out more modest living accommodations, walkable neighborhoods, and community connections. Despite this positive shift—a shift that is stimulating the revitalization of economically distressed urban neighborhoods—many former industrial cities continue to struggle with vacant, abandoned, and otherwise blighted properties. These neglected properties threaten the health and safety of the community, hinder economic development, and generate high financial and psychological costs for municipalities. In the worst of circumstances, the aged building stock is left to deteriorate to the point of nuisance and eventual demolition. The vacant lots left in the wake of the demise further plunge the neighborhood into a distressed state. In the best of circumstances, developers push for the removal of blighted structures to

2. Id. at 224.
5. SMALLER IS MORE BEAUTIFUL, ECONOMIST (Oct. 22, 2011), www.economist.com/node/21533417/print (discussing the decline of old industrial cities over the past half century and the ongoing problems with acres of abandoned property, a dwindling tax base, reduced commercial activity, high unemployment, and high crime).
pave the way for new construction—a system that results in the loss of significant historic buildings, community identity and character, and, in many cases, affordable housing and small business opportunities (i.e., gentrification). 6

Municipalities use vacant building registries, hazard abatement programs, public nuisance law, condemnation procedures, land banks, and other local ordinances in their attempts to remedy the vacant and abandoned building problem. However, existing legislation encourages demolition, and the hurdles of implementing and enforcing building codes have weakened their effectiveness. This Note proposes that municipalities have the authority to proactively manage vacant and abandoned historic properties and promote economic development and community stabilization by rehabilitating these properties.

Part I provides a history of urban decline, from deindustrialization and middle-class suburban migration to federally subsidized urban renewal programs; discusses the economic, cultural, and social impacts of urban divestment; and focuses on how urban blight frustrates revitalization efforts and threatens historic buildings. Part II examines how Cincinnati—a historic rust belt city in Southwestern Ohio—is managing its growing vacant and abandoned building stock. This Part addresses both substantive legislation and the procedures implementing and enforcing that legislation and analyzes the effectiveness of the city’s actions. Part III assesses the legal challenges the city may face in adopting more expansive legislation, particularly focusing on the limits of a municipality’s authority under state enabling legislation and the substantive and procedural due process and equal protection guarantees of the United States Constitution. This Part also recommends more extensive legislation that Cincinnati, and other cities, can implement to more proactively and aggressively manage its vacant and abandoned building stock and drive rehabilitation and revitalization efforts.

PART I: URBAN DECLINE IN THE UNITED STATES

A. History of Urban Decline


7. Cincinnati, Ohio, was selected as a case study because it is a classic rust belt city with a deteriorating historic building stock, maintains the largest urban historic district in the nation, and has an active preservation community that has publicized the city’s revitalization efforts over the past several years.
Vacant and abandoned properties have risen to the forefront of municipal concern in recent years. While the subprime mortgage crisis, which resulted in a dramatic increase in foreclosure rates, exacerbated the problem, vacant and abandoned buildings have long been fixtures on the urban landscape. Urban centers began experiencing population declines as early as the 1950s, as the middle class migrated in a mass exodus to the expanding suburbs and federally funded urban renewal projects displaced over one million inner-city denizens.8 The dramatic loss of employment opportunities in rust belt cities further exacerbated this population decline, which, in many cities, continued unabated for decades.9 Between 1999 and 2005 alone, Ohio’s major cities lost nearly 300,000 manufacturing jobs.10 A 2007 study of eight former industrial cities in Ohio—Cleveland, Columbus, Dayton, Ironton, Lima, Springfield, Toledo, and Zanesville—reveals population declines of twenty to thirty percent between 1970 and 2000,11 and Cincinnati census data for this same period demonstrates a thirty-four percent population loss.12 And the problem persists. Cincinnati and Cleveland lost between ten and seventeen percent of their populations, respectively, over the last decade,13 and Columbus’ historic core, as defined by its 1950 boundaries, experienced comparable population declines.14

The extreme economic decline and population loss in urban centers resulted in concentrated areas of poverty and crime—what government officials derisively called “slums.”15 The passage of the Housing Act of 1949 spurred the federal urban renewal program, which provided financial assistance to municipalities for wholesale “slum” clearance,16 a massive
undertaking that remained in full force for over twenty-five years. The coordinated efforts of the federal and local governments proved to be misguided, as many of the resulting large-scale redevelopment projects eventually failed, draining existing businesses, and further isolating and marginalizing the low-income neighborhoods that initially had been spared the wrecking ball. Those neighborhoods that did not succumb to the massive devastation of the urban renewal program were left to languish slowly.

B. Rise in Vacant and Abandoned Buildings

The former industrial cities that comprise the nation’s rust belt suffered severe economic and physical deterioration during the second half of the twentieth century. By 2007, more than 25,000 vacant properties and 15,000 vacant buildings filled Ohio’s eight largest industrial cities. The eight-city report, previously discussed at footnote 10, stressed, however, that these numbers may be as much as two to six times higher in cities without adequate vacant building documentation policies. Approximately 2,700 vacant buildings are currently registered in Cincinnati, but because the city only registers uninhabitable buildings—those buildings that are not fit for human occupation—the total number is actually much higher. Historic buildings are more prone to vacancy and abandonment because the inner-city core, which is often the first area to lose businesses and residents, is typically comprised of the oldest structures. Roughly thirty to fifty-percent of Ohio’s vacant buildings pre-date 1940, and the large majority of vacant buildings in Ohio’s inner-city core neighborhoods pre-date 1940.

17. FULLILOVE, supra note 1, at 57–59. Despite the devastating impacts on many historic inner-city neighborhoods, the program sparked the modern-day historic preservation movement. Id. See, e.g., Roberta Brandes Gratz, No Town, PRESERVATION, 38–42 (1999). In 1977, in an effort to revitalize the central business district, Detroit constructed the Renaissance Center—five office buildings, a hotel, retail stores, two garages, and a vast parking lot. The city gambled on the project to pump life back into the city. Instead, the project drained existing businesses, and the “town’s remaining urban vitality vanished.” Id. at 42. See also ROGER TRANCIK, FINDING LOST SPACE: THEORIES OF URBAN DESIGN 12 (1986) (emphasizing how urban renewal destroyed urban life and stating that “[u]rban-renewal projects rarely corresponded in spatial structure to the evolved community patterns they replaced, nor did they respond to the social relationships that gave meaning to community existence”).

18. CMTY. RESEARCH PARTNERS, supra note 10, at iii. See id.

19. CMTY. RESEARCH PARTNERS, supra note 10, at iv. See id.


21. Id.
Many of the vacant and abandoned buildings that fill inner-city neighborhoods are located in historic districts, which face delisting if current demolition trends are not reversed. Cincinnati’s most notable historic district, Over-the-Rhine (“OTR”), at approximately 362.5 acres, is the nation’s largest urban historic district. In 2006, OTR was placed on the National Trust for Historic Preservation’s (“NTHP”) list of “America’s Eleven Most Endangered Historic Places.” As stated by the NTHP:

Cincinnati is a very historic city with an extraordinary number of historic places on the National Register. Over-the-Rhine has more such buildings than New Orleans and is larger than Charleston’s world-renowned historic district. Unlike these cities, though, Cincinnati has not capitalized on its historic assets. In fact, we have let many of these assets become an albatross: historic buildings throughout Over-the-Rhine sit vacant and derelict, deteriorating over years of neglect. Unfortunately, the approach to this dilemma has been standardized and reactionary: demolition. Over-the-Rhine is still one of America’s most historically significant neighborhoods, but it is at a tipping point. We have recently calculated that OTR is only four demolitions away from passing 50% destruction of its historic building stock.

In the five years leading up to OTR’s inclusion on the endangered list, fifty-two of its historic buildings succumbed to demolition. As a result, the neighborhood has lost too much urban fabric to be considered a National Historic Landmark, a designation that may have paved the way for preservation grant money. While Cincinnati’s vacant building registry

24. See National Register Federal Program Regulations, 36 C.F.R. § 60.15 (2013) (discussing grounds for removing properties from the National Register, including “qualities which caused it to be originally listed have been lost or destroyed”).
26. Id. Every year, the NTHP publishes a list of the eleven most endangered historic places in the nation. Properties on the list are typically of great significance and are under threat of demolition, neglect, alteration, or other negative impact. By publishing this list, the NTHP seeks to garner support for the threatened resources. OTR’s placement on the list in 2006 has no doubt helped to spur the preservation efforts that are currently heavily underway in the district. For more information on the endangered list, see America’s Eleven Most Endangered Historic Places, NAT’L TRUST FOR HIST. PRESERVATION, http://www.preservationnation.org/issues/11-most-endangered/ (last visited Dec. 5, 2012).
28. Id.
29. Lucy May, Building by Building, Over-the-Rhine’s History Slipping Away, BUS. COURIER (June 17, 2009),
current lists roughly 300 properties, preservationists at the OTR Foundation believe as many as 500 may be sitting vacant or abandoned. At the turn of the twentieth century, OTR’s population boomed at 45,000 residents; today it maintains only 4,900. The OTR Foundation speculates that the historic district could accommodate more than 20,000 new individuals without displacing any existing residents.

C. Impact of Vacant and Abandoned Buildings

The financial impact of vacant and abandoned buildings on municipalities is significant. In 2007, vacant and abandoned properties cost Ohio’s industrial cities roughly $15 million in annual services and $49 million in cumulative lost property tax revenues to both local governments and school districts. A municipality generally loses $128 in delinquent real property taxes for every $1,000 of taxes levied. The financial impact also directly and indirectly extends to the cities’ residents. Lost tax revenues shrink the overall city budget and weaken the ability of the city to provide services to its residents, and proximity to vacant or abandoned buildings dramatically decreases property values.

The negative effects of vacant and abandoned buildings reach beyond economics. These properties continue to deteriorate to the point of public nuisance, attract criminal activity, and pose a fire risk. Moreover, the negative impacts can spread both physically and psychologically through the “broken window theory”—a sociological theory positing that one broken window will inevitably lead to other broken windows. Small signs

http://www.bizjournals.com/cincinnati/stories/2009/06/15/story2.html?page=all (quoting the preservation director at the Cincinnati Preservation Association: “The attrition of historic buildings in Over-the-Rhine has been the slow drip, drip of the loss of one or two building at a time.”).

30. CITY OF CINCINNATI CMTY. DEV., supra note 21.
32. OVER-THE-RHINE FOUND., supra note 25,
34. CMTY. RESEARCH PARTNERS, supra note 10, at v.
35. Id. at iv.
36. Id. at 2–17.
37. See, e.g., id. (citing a Philadelphia study that found that properties located within 150 feet of a vacant or abandoned property sold for nearly $8,000 less than those more than 450 feet from a vacancy).
38. Id. at 5–47.
39. See George L. Kelling & James Q. Wilson, Broken Windows: The Police and Neighborhood Safety, ATLANTIC (Mar. 1982), http://www.theatlantic.com/magazine/archive/1982/03/broken-windows/304465/. In this seminal article, Kelling and Wilson first posited the theory that strictly policing small infractions will reduce more significant crime and restore order to high-crime neighborhoods. The authors used the broken window as an analogy to this theory, stating that “one broken window becomes many.” Id. Urban theorists
of blight, such as broken windows, trash, vandalism, and graffiti, send out a message that there are no consequences for bad behavior and no control over the condition of the neighborhood. This perception leads to fear, which, in turn, weakens the housing market. As residents leave, businesses leave, and neighborhoods grow disconnected. Eventually, the small islands of habitation become lost in a sea of abandoned buildings and vacant lots.

D. Impacts of Demolition

Municipalities typically respond to the problem of vacant and abandoned buildings with aggressive demolition, which has resulted in a significant loss of community stability, neighborhood character, and cultural continuity. The historic preservationist’s library is stocked with literature espousing the economic merits of saving historic buildings and districts. In distressed urban neighborhoods like OTR, cultivating a solid historic building stock provides better affordable housing opportunities, incubator spaces for small businesses, and a stable real estate market.

quickly latched onto this concept and promoted it as a rationale for blight removal in deteriorated neighborhoods. While many cities claim great success in reducing crime under the broken window theory, the concept has been the subject of debate in recent years. See Bryan M. Seiler, Moving from “Broken Windows” to Healthy Neighborhood Policy: Reforming Urban Nuisance Law in Public and Private Sectors, 92 MINN. L. REV. 883, 898 (2008). Seiler finds little empirical support for the broken window theory and argues that it dramatically underestimates the “complexity and particularly flexible nature of human behavior.”

40. Kelling & Wilson, supra note 39.
41. CMTY. RESEARCH PARTNERS, supra note 10, at vi.
42. See FULLOVE, supra note 1, at 89 (discussing the contagious nature of housing destruction and how it can destroy miles of urban habitat if left unimpeded).
43. See generally RICHER HERITAGE: HISTORIC PRESERVATION IN THE TWENTY-FIRST CENTURY xiii–xv (Robert E. Stipe, ed., 2003) (outlining several reasons why society chooses to preserve cultural resources). Stipe states: “[W]e seek to preserve our heritage because our historic resources are all that physically link us to our past . . . [and] we strive to save our historic and architectural heritage simply because we have lived with it and it has become part of us. The presence of our physical past creates expectations—expectations that are important to our daily lives.” Id. at xiii. See also DONOVAN D. RYPKEMA, THE ECONOMICS OF HISTORIC PRESERVATION: A COMMUNITY LEADER’S GUIDE 69 (2002) (emphasizing that “historic preservation attaches people to their community, provides a sense of place, connects them to their neighbors, and encourages public participation”).
44. See generally RYPKEMA, supra note 43 (providing one hundred economic rationales for historic preservation, including job creation, small business development, heritage tourism, and enhanced property values).
45. Id. at 69–70. Existing buildings provide more affordable spaces for housing and small businesses because costs of rehabilitation are cheaper than new construction, and the overhead of maintaining a newer building is typically greater than maintaining an older one. Property values of existing buildings are more stable because historic neighborhoods are less vulnerable to fluctuations in the market and speculative real estate practices. Id. See also JACOBS, supra note 3, at 188 (arguing that “hundreds of ordinary enterprises . . . can make out successfully in old buildings, but are inexorably slain by the high overhead of new construction”).
What is impossible to quantify, but is no less present, is the emotional loss suffered by the long-time residents when their community is destroyed and their neighbors, friends, and relatives are uprooted and dispersed. Over time, these residents have formed a culture, their families have taken root, and their communities have flourished, and the upset caused by widespread demolition can render devastating social and psychological impacts.\footnote{46. See generally FULLILOVE, supra note 1 (detailing the social and psychological impacts of urban renewal programs on the displaced African-American residents in several cities and the subsequent break down of the culture that formed around those bulldozed neighborhoods).}

The process of urban renewal that spawned the wholesale clearance of neighborhoods and displacement of residents throughout the 1950s and 1960s has left its mark, and the ongoing disinvestment continues to chip away at the community fabric. Neighborhoods that were redeveloped with new housing and commercial businesses never regained the character, culture, and community that were eradicated.\footnote{47. Id.} The process of urban renewal that spawned the wholesale clearance of neighborhoods and displacement of residents throughout the 1950s and 1960s has left its mark, and the ongoing disinvestment continues to chip away at the community fabric. Neighborhoods that were redeveloped with new housing and commercial businesses never regained the character, culture, and community that were eradicated.\footnote{48. A drive through any distressed urban neighborhood will reveal large swaths of vacant land that has been left to the ravages of nature. And one will not observe much, if any, new construction in these areas. See TRANCIK, supra 18, at 2 (explaining how modern cities are filled with “lost spaces,” such as “the vacant blight-clearance sites—remnants of urban-renewal days—that were, for a multitude of reasons, never redeveloped”).}

Even if one believes that new construction, rather than historic preservation, is beneficial to a distressed community, it is important to note that new construction rarely follows demolition.\footnote{49. See Adrienne Lyles-Chockley, Building Livable Places: The Importance of Landscape in Urban Land Use, Planning, and Development, 16 BUFF. ENVTL. L.J. 95, 117 (2009) (discussing cities’ struggles with managing vacant lots, pocket parks, and other open spaces, which are prone to accumulating trash, overgrowth, and drug activity).} The resulting empty lots only further exacerbate many of the same ills initially brought on by vacant and abandoned buildings. The lots remain undeveloped—further fragmenting the once-contiguous residential and commercial development—and become overgrown, vermin-infested, and trash-laden.\footnote{50. See FULLILOVE, supra note 1, at 89, 93.} The unkempt lots are no surprise. If the buildings that once occupied those lots were untended, it stands to reason that the lots will also remain untended. And the empty lots themselves are contagious, as one bulldozed property often leads to another.\footnote{51. JACOBS, supra note 3, at 187–99.} Cities rest their hopes on new development that never arrives and then find themselves contending with a different host of problems brought about by overgrown urban prairies.

In her seminal book The Death and Life of Great American Cities, urban activist Jane Jacobs preaches the merits of dense, urban neighborhoods filled with sidewalks, small businesses, and human-scale historic buildings.\footnote{46. See generally FULLILOVE, supra note 1 (detailing the social and psychological impacts of urban renewal programs on the displaced African-American residents in several cities and the subsequent break down of the culture that formed around those bulldozed neighborhoods).} Jacobs concludes that high-density neighborhoods
create vibrant and active cities and that, despite widespread misconceptions, lower-density neighborhoods are more likely to breed overcrowding and “slum” conditions. High concentrations of people produce more services, more amenities, and more social activities, and the large number of eyes on the street serve to deter criminal activity. Vacant lots have no eyes with which to observe street activity or watch out for neighbors; they reduce walkability of neighborhoods, and provide no services or amenities to the remaining residents.

E. Foreclosures and the Subprime Mortgage Crisis

The recent subprime mortgage crisis undoubtedly spurred a significant rise in vacant and abandoned buildings, particularly residential properties, and has been the catalyst for increasing municipal intervention. Ohio alone saw 80,000 foreclosure filings in 2006, up from 16,000 in 1995. A 2010 report on vacant and abandoned properties in seventy-seven cities nationwide reveals a thirty-three percent increase in vacant and abandoned buildings as a result of foreclosure, with some cities reporting between one- and two-hundred-percent increases. However, as is the case with Cincinnati’s OTR, vacant and abandoned buildings have been a persistent problem in inner-city urban neighborhoods for decades. Many of the problems that these foreclosed properties pose are quite different than those presented by the recent foreclosure crisis, but most municipalities have been taking a one-size-fits-all approach.

Foreclosures can occur anywhere and have been widespread over the past few years. Subprime mortgage lending to high-risk borrowers resulted in homeowners struggling to keep up with their debt payments. The bulk of the subprime lending occurred in relatively stable middle-class neighborhoods and sprawling suburbs. Even though mortgage lenders

52. Id. at 200–21.
53. Id.
55. CMTY. RESEARCH PARTNERS, supra note 10, at iv.
were generously doling out money to prospective homebuyers, many distressed inner-city neighborhoods were still considered too high-risk for otherwise creditworthy borrowers. Because the high foreclosure rate was largely a result of predatory lending practices and the failure of otherwise well-meaning homeowners to keep up with their mortgage payments, the subprime mortgage crisis is not endemic to any specific neighborhood. On the contrary, the problem with vacant and abandoned properties in distressed inner-city neighborhoods is rooted in the decades of decline these areas have been experiencing—the problem is linked to the neighborhood itself. As discussed in Part II, these two problems require a specifically tailored set of solutions.

PART II: CINCINNATI’S EFFORTS TO ERADICATE VACANT AND ABANDONED BUILDINGS

A. Vacated Building Maintenance License

Vacant building registries have garnered attention in recent years, particularly in the wake of the foreclosure crisis. Over 800 municipalities in forty-three states and the District of Columbia have already enacted vacant building registries, and many more ordinances are pending local approval. Municipalities regard these registries as a way to “motivate owners to maintain vacant buildings and return them to productive use, identify the party responsible for the problem properties, monitor vacant properties, and defray costs of providing related municipal services.”

http://www.federalreserve.gov/pubs/feds/2008/200829/200829pap.pdf (stating that subprime lending practices are prevalent in areas of new construction). See also Jim Rokakis, The Shadow of Debt, WASH. POST (Sept. 30, 2007), http://www.washingtonpost.com/wp-dyn/content/article/2007/09/28/AR2007092801331.html?sid=ST2007093000980. Slavic Village, a tight-knit residential neighborhood of second-generation Polish and Czech immigrants in Cleveland, has been particularly hard hit by the foreclosure crisis. With roughly eight hundred vacant buildings and completely abandoned streets, the once-stable neighborhood has fallen victim to drugs, looting, and a host of other criminal activities. Id.


Although ordinances greatly vary from one jurisdiction to another, they generally define the scope of the targeted property—often providing a definition of “vacant building” or “vacant property”—set a notice period, establish a fee schedule, and specify requirements for compliance.⁶³

Cincinnati adopted its Vacated Building Maintenance License ("VBML") program in 1996.⁶⁴ Cincinnati’s ordinance targets structures that the chief building official has deemed “dangerous and unsafe”—i.e., a hazard to health, safety, and welfare; under threat of collapse; or generally “so dilapidated, decayed, or unsafe, or which so substantially fail to provide the basic elements of shelter or safety that they are unfit for human habitation or dangerous to life or property.”⁶⁵ Once the building inspector finds dangerous and unsafe conditions, a vacation notice is served upon the owner.⁶⁶ The owner has thirty days from the date of the initial vacation order to apply for the license and another sixty days to stabilize the building in conformance with the minimum standards of safety and structural integrity.⁶⁷ Additional instructions for obtaining a certificate of appropriateness, a document stating that the rehabilitation work is appropriate for the historic district, are provided for buildings located within designated districts.⁶⁸ Property owners must meet thirteen standards set forth in the VBML ordinance that ensure vacated buildings are:

- adequately protected from intrusion by trespassers and from deterioration by the weather . . . will not be detrimental to the public health, safety and welfare, will not unreasonably interfere with the reasonable and lawful use and enjoyment of other premises within the neighborhood, and will not pose any extraordinary hazard to police officers or fire fighters entering the premises in times of emergency.⁶⁹

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⁶³. SAFEGUARD PROPS., supra note 61.
⁶⁴. Lucy May & Dan Monk, An Ordinance Aimed at Seizing the Potential of Cincinnati’s Thousands of Vacant Buildings is Falling Short, CINCINNATI BUS. COURIER (Aug. 18, 2008), http://www.bizjournals.com/cincinnati/stories/2008/08/18/story2.html. See also SAFEGUARD PROPS., supra note 61. Cincinnati’s ordinance is one of the longest running vacant building registries. The majority of these ordinances were adopted after 2009 to address the growing problem of foreclosed homes. The earlier ordinances that pre-date the foreclosure crisis, like Cincinnati’s, were typically adopted to address blight in the historic urban core. Id.
⁶⁶. Id. § 1101-67 (2011).
⁶⁷. Id. § 1101-77 (2011).
⁶⁸. Id. § 1101-67 (2011).
⁶⁹. Id. § 1101-79 (2012).
Buildings are typically inspected every thirty days to verify compliance.\(^70\) A property owner’s failure to apply for or receive a license may result in criminal charges,\(^71\) and the offending buildings may be placed in the city’s hazard abatement program and eventually may be demolished.\(^72\) Roughly 2,769 buildings are currently licensed under the VBML program.\(^73\) Nearly 300 are located in OTR, and several hundred more are scattered within the city’s other twenty-eight historic districts.\(^74\) Of the licensed buildings, 1,320 are condemned, 297 have been deemed a hazard, and almost 1,000 properties are the subject of civil or criminal proceedings.\(^75\)

Key to Cincinnati’s VBML is the annual fee that the city assesses to offset the cost of maintaining the program. Cincinnati boasts one of the more aggressive fee schedules compared with other vacant building registries.\(^76\) The ordinance provides a graduated rate system with an initial application fee of $900 for properties that have been vacant for less than one year and an annual increase up to $3,500 for properties vacant five or more years.\(^77\) An additional $1,000 late fee will be charged for the owner’s failure to obtain or renew a license within the specified time period.\(^78\) The current rate system was adopted in 2006 when the VBML program was overhauled, and in the first two years of the revised rate system, the city collected roughly $628,000 from 544 property owners.\(^79\) Ideally, the increased fee gives the city more resources to manage the growing problem and also incentivizes property owners to quickly put their buildings back into productive use.\(^80\)

Cincinnati’s VBML was largely upheld as a facially valid exercise of the city’s police power in *Etzler v. City of Cincinnati.*\(^81\) In 2009, Cincinnati property owners sought a declaratory judgment that the VBML violated
substantive due process and equal protection rights; was void for vagueness; and violated the Ohio Constitution’s mandate that taxes against real property be uniform according to value; and that the fines were unconstitutionally excessive.\(^82\) First, the court dismissed the plaintiffs’ due process and state constitutional claims, relying on the Sixth Circuit’s “entitlement test” to determine whether the plaintiffs’ alleged property rights are protected under the Fourteenth Amendment.\(^83\) The Sixth Circuit explained that a plaintiff “lacks a legitimate claim of entitlement or justifiable expectation if a municipality has discretion under its zoning code to deny the plaintiff’s land-use application.”\(^84\) Applying this test to the VBML, the court found that because an inspector has the discretion to order a building to be vacated, the plaintiffs have no claim of entitlement to that property interest.\(^85\) The court also held that the fee is not a tax but rather an assessment for services provided to the individual property owners and is valid under the state constitution.\(^86\) However, the court found the plaintiffs had a valid equal protection claim as applied to their property due to the city’s alleged uneven and arbitrary enforcement.\(^87\) Additionally, because the ordinance involved criminal penalties and did not define “code violation” and “noncompliance” and because the excessive fines appeared disproportionate to the gravity of the offense, the court found that the plaintiffs stated valid void-for-vagueness and excessive fines claims.\(^88\) Although documentation on any further proceedings is unavailable, the VBML has undergone little change since this 2009 case— with the exception that the terms “code violation” and “noncompliance” are now specifically defined in the ordinance.\(^89\)

Critics of Cincinnati’s VBML argue that the program has been fraught with inefficient and inconsistent enforcement since its inception.\(^90\) Good-faith property owners who are paying annual fees and actively rehabilitating their buildings point to neighboring properties that are unsecured and rapidly deteriorating, and many residents claim the city is intentionally overlooking its own nuisance properties in violation of its own laws.\(^91\) The

\(^{82}\) Id. at *1.
\(^{83}\) Id. at *3, *7.
\(^{84}\) Id. at *7.
\(^{85}\) Id. at *4.
\(^{86}\) Id. at *6.
\(^{87}\) Id. at *4.
\(^{88}\) Id. at *6–7.
\(^{89}\) CINCINNATI, OHIO, BLDG. CODE, § 1101-65 (2010).
\(^{90}\) See May & Monk, supra note 64 (highlighting shortcomings of VBML program).
\(^{91}\) Id. See also Dan Monk & Lucy May, City Files Charges Against Cincinnati Public Schools, CINCINNATI BUS. COURIER (Sept. 20, 2010), http://www.bizjournals.com/cincinnati/stories/2010/09/20/story2.html?page=all. In 2008, a local
city has countered these accusations by citing how the inadequate inspection staff and growing backlog of properties have forced the city to prioritize buildings that pose immediate public safety hazards.  

Absentee property owners present an even bigger challenge under the VBML program. According to city officials, absentee owners are the worst offenders when it comes to complying with building codes, responding to vacation orders, and paying licensing fees, and the city’s attempts at attaching liens to such properties are futile when the owners are already tax delinquent. Furthermore, many of these absentee owners have little interest in placing their buildings back into productive use, at least in the near future. Rather, they speculatively hold onto numerous properties across the state and await a rise in property values.

Notwithstanding the VBML’s short-term enforcement hurdles, the program’s long-term effectiveness at actually saving and rehabilitating the city’s aging building stock is questionable. The program’s biggest flaw is that it targets buildings that are already violating building codes; vacant buildings that are not already “dangerous and unsafe” need not apply for a VBML.  

By the time the city intervenes, the forces are already working against saving the building and putting it back into productive use. Consequently, the expense of bringing a building into compliance will be much higher, deterring delinquent property owners from taking action and inhibiting many well-intentioned property owners who cannot afford both to pay the licensing fee and pursue rehabilitation. As buildings continue to deteriorate and threaten public health and safety, municipalities often feel

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93. Id.

94. Id.

95. See Lucy May, Firm Snapping Up Vacant Buildings Called Speculator, CINCINNATI BUS. COURIER (Dec. 8, 2008), http://www.bizjournals.com/cincinnati/stories/2008/12/08/story2.html?page=all; Lucy May, Bought on the Cheap, Many Cincinnati JD4 Homes Sit in Decay, CINCINNATI BUS. COURIER (Jul. 6, 2009), http://www.bizjournals.com/cincinnati/stories/2009/07/06/story9.html?page=all. In 2008, a Utah-based investment company purchased nearly 150 properties across Ohio with the goal of eventually owning one thousand. Roughly thirty or forty of those properties are located in Cincinnati. The company purchased the properties through foreclosure and is hoping to flip them within a few years when the market improves. However, several properties in Cincinnati have already been condemned and many more are being left to deteriorate. The city sees this company, and similar speculative investors, as one of the biggest threats to revitalization efforts. Id.

that they have little recourse outside of ordering demolition. They allow their buildings to fall into extreme disrepair and then, by raising takings claims, argue that requiring rehabilitation is an undue hardship and not economically viable. Fifty of fifty-six buildings lost in OTR between 2001 and 2006 were a result of emergency demolition spurred by years of neglect.

The city’s failure to facilitate rehabilitation efforts compounds the problem of late registration. While the city grants a two-year fee waiver to property owners with a rehabilitation plan in place, it does not provide any direct financial assistance to aid otherwise well-meaning property owners who lack the resources to bring their buildings back into productive use. Moreover, once the two-year fee suspension expires, the rate increase becomes even more cumbersome. Even property owners slowly but actively in the process of rehabilitating their buildings have been faced with seemingly unwarranted demolition orders for minor VBML infractions. In many respects the program serves as a one-way street to demolition.

97. See CT, TRUST FOR HISTORIC PRES., DEMOLITION BY NEGLECT, http://www.ctrust.org/index.cgi/1050 (explaining how both municipalities and courts feel bound to allow demolition of buildings that have become a public health and safety hazard, particularly when rehabilitation costs are large).
98. See CINCINNATI, OHIO, ZONING CODE, § 1435-09 (2012) (stipulating that “no one shall make an alteration or undertake a demolition, or receive any permit to do so, without first obtaining a Certificate of Appropriateness”).
99. See Dan Monk, Over-the-Rhine Property Owner Elicits Accusations of Neglect, COURIER (Aug. 11, 2009), http://www.bizjournals.com/cincinnati/stories/2009/08/10/story1.html. In 2003, a local family foundation purchased thirteen buildings in the OTR Historic District for redevelopment. The foundation sought permits to demolish twelve buildings. Although the historic conservation board denied the permits, five of the buildings were razed as of 2009. While the foundation pursued several lengthy appeals, the buildings continued to deteriorate, possibly making demolition the only option. Id.
100. See Kevin LeMaster, Zoning Board of Appeals Rules Demolition of 309 W. Fifth Street Okay, BLDG. CINCINNATI (Apr. 19, 2012, 2:38 PM), http://building-cincinnati.com. In April 2012, the zoning board of appeals (“ZBA”) reversed the historic conservation board’s decision to deny a demolition request to the owner of 309 W. Fifth Street near the city’s central business district. When the owner purchased the property in 2010, the city had already declared the building a public nuisance. The owner left the property unsecured against the weather and allowed it to further deteriorate before seeking a demolition permit. He claimed that rehabilitating the building would result in a financial loss and claimed that denial of his permit amounted to an illegal taking. The ZBA agreed. Id.
103. See Wheeler v. City of Cincinnati, No. C-060393, slip op. at 2–3 (Ohio Ct. App. May 30, 2007) (remanding to the trial court to determine if, in light of the appellant’s substantial renovation
Most municipalities have adopted public nuisance ordinances, which allow municipalities to take action against properties that interfere with the public health, safety, and welfare. Public nuisance claims may be brought under the common law or specifically defined by statute. While private nuisance is a civil tort action, public nuisance offenders may face criminal charges. Ohio’s enabling legislation directly authorizes municipalities to regulate the erection, inspection, removal, repair, and alteration of buildings. Expressedly included under that grant of power is the authority to remove or repair “insecure, unsafe, or structurally defective buildings.” The state also grants municipalities broad power to abate nuisances, prevent injury, and prosecute any individual who “creates, contributes to, or suffers such nuisance to exist.” Ohio’s statute defines a nuisance building as one that is:

structurally unsafe, unsanitary, or not provided with adequate safe egress; that constitutes a fire hazard, is otherwise dangerous to human life, or is otherwise no longer fit and habitable; or that, in relation to its existing use, constitutes a hazard to the public health, welfare, or safety by reason of inadequate maintenance, dilapidation, obsolescence, or abandonment.

A municipality may adopt word-for-word this definition of “nuisance” or draft a more restrictive definition, but a municipality may not provide a broader definition of nuisance than that authorized under state statute. However, the state definition is sufficiently broad to afford municipalities the discretion to apply their own interpretation to the statute’s terms, such as “dilapidation,” as long as that definition does not contravene any stated legislative purpose. Other pertinent sections of the Ohio statute define parameters within which a municipality must act when abating a

106. Restatement (Second) of Torts § 821B.
107. Id. at cmt. d.
109. Id.
110. Id. § 715.44.
111. Id. § 715.263.
nuisance—e.g., limitations on acquiring property,\textsuperscript{112} abatement liens,\textsuperscript{113} and notice procedures.\textsuperscript{114}

Cincinnati considers any “dangerous or unsafe” premises to be a public nuisance, and its ordinance enumerates five defects that constitute dangerous and unsafe conditions.\textsuperscript{115} Despite this enumerated list, the criteria leave a wide berth for interpretive discretion. For example, as stated above, a building may be deemed dangerous and unsafe if it is a “hazard to the safety, health, or general welfare of the occupants or the public.”\textsuperscript{116} When a building is found to be a public nuisance, the city issues a written notice that orders the owner to bring the property into compliance with the building code or remove the offending structure within thirty days.\textsuperscript{117} The notice must be sent at least ten days before a public hearing at which interested parties may appear in opposition to the nuisance orders.\textsuperscript{118} In an emergency situation—under threat of collapse or any other immediate danger—the city is authorized to take any steps necessary to abate the hazard, with or without notice, in the interest of public safety.\textsuperscript{119} Under Cincinnati’s public nuisance ordinance, the administrative procedures for dealing with dangerous and unsafe premises specify that repair shall be undertaken in lieu of demolition only upon authorization by the city council.\textsuperscript{120} Here, the property owner has the burden of presenting to the council a viable rehabilitation plan early in the process.

Because Cincinnati receives federal funds from the U.S. Department of Housing and Urban Development (“HUD”) for demolishing blighted buildings, the city must comply with Section 106 of the National Historic

\begin{footnotes}
\item 113. \textit{Id.} § 715.261 (2011).
\item 114. \textit{Id.} § 715.26 (2011).
\item 115. \textit{Cincinnati, Ohio, Bldg. Code} § 1101-63. The ordinance states: “All buildings having defects as set forth herein shall be deemed dangerous or unsafe buildings as follows: (1) Those whose walls, floors, foundations, or other members are so out of plumb, level, original position, deteriorated, or overloaded as to be unlikely to perform the intended structural function, or are in such condition or of such size as to cause stresses in any structural members likely to result in failure or collapse; or (2) Those which are, or have become, so dilapidated, decayed, or unsafe, or which so substantially fail to provide the basic elements of shelter or safety that they are unfit for human habitation or dangerous to life or property; or (3) Those which in the opinion of the chief building official or his designee and a responsible officer or the fire division constitute a serious fire hazard because of their use, construction, unprotected exposure, or lack of maintenance; (4) Those which are a hazard to the safety, health, or general welfare of the occupants or the public; or (5) Those which the chief building official or his designee has ordered vacated or kept vacant and which in the time provided by order have not been brought into compliance with the CBC or into compliance with the terms and conditions of a current vacant building maintenance license.” \textit{Id.}
\item 116. \textit{Id.}
\item 117. \textit{Id.}
\item 118. \textit{Id.}
\item 119. \textit{Id.}
\end{footnotes}
Preservation Act (“NHPA”). Under this review process, the city must assess the historic significance of any property that has been condemned and is being considered for demolition. The city has entered into a programmatic agreement with the Ohio Historic Preservation Office (“OHPO”), under which Cincinnati’s urban conservator will oversee the process of seeking public comment and assessing the significance of properties over fifty years of age. Unless an emergency exists, any building deemed historically significant must be repaired rather than demolished. Recent data, as of November 2012, indicate that roughly fifty historic buildings have been listed in the public hearing schedule each month for the past six months. Due to the large number of historic buildings arising within the hazard abatement program, and the need to hold public hearings to consider each and every structure, bad-faith property owners can again take advantage of this process to achieve demolition by neglect.

Public nuisance is a well-ingrained common law and statutory doctrine that has been deemed a necessary component to a municipality’s police power, and, thus, the courts have broadly upheld public nuisance claims and granted wide deference to local governments to determine what constitutes a nuisance. While the substance of Cincinnati’s public nuisance law has been held valid, the application of the ordinance has been struck down when the city has failed to comply with the appropriate

121. See HISTORIC BLDG. LOSS TASK FORCE, CONCLUSIONS AND RECOMMENDATIONS 44–45 (2010) outlining the NHPA Section 106 process, which is triggered by the distribution of federal HUD funds and requires that the city review the significance of historic properties before demolition. Cincinnati has entered into a programmatic agreement with the OHPO to administer the Section 106 process, and the city’s Urban Conservator has been tasked with overseeing the process. The Urban Conservator came under fire in recent years for failing to properly assess historic structures. When the Conservator was confronted by significant historic properties, he claimed that the city was not using HUD money but rather local funds for their demolition—a clear abuse of the system. The Historic Building Loss Task Force shed light on this abuse and has since made strides to rectify the situation. Id.

122. Id.

123. Id.


126. See Maxedon v. Rendigs, 9 Ohio App. 60, 61 (Ohio Ct. App. 1917) (upholding Cincinnati’s authority to “regulate the sanitary condition [of buildings] and provide for their inspection, and for the repair and destruction, if necessary of insecure, unsafe dangerous buildings”).

127. See Rhodes v. City of Cincinnati, No. C-890384, 1990 WL 88745, at *1 (Ohio Ct. App. 1990) (upholding Cincinnati’s public nuisance ordinance and finding that city’s action was not “unconstitutional, illegal, arbitrary, capricious, [or] unreasonable”).
notice procedures. The court typically sets a higher due process bar for properties slated to be razed—if the demolition process is expedited, the city must show that peril to the public is imminent.

Cincinnati preservationists decry the city’s seemingly aggressive demolition policies for nuisance properties, particularly where historic buildings are involved, and warn that the public nuisance designation is overused. They claim that buildings that could be rehabilitated are being razed with little recourse for the owners. In response, city officials urge that they only view demolition as a last resort, particularly because demolition is expensive, but concede that condemnation has become more common as the vacant and abandoned building numbers continue to swell year after year. Critics also deride the city’s lax prosecution of building code violations. Prosecution is a slow and costly process, particularly when the city is already backlogged on inspection and code enforcement, and many property owners are resistant to complying with abatement orders and would prefer to face jail time. As a result, bad faith owners know that non-compliance is an acceptable level of risk. Along this same line of reasoning, property owners in the protected historic districts work the loopholes in the system to obtain emergency demolition approval for their nuisance properties. Finally, preservationists argue that the system will continue to fail without a receivership program, which would allow the court to appoint a receiver to enter the nuisance property and make repairs.

128. See Cincinnati v. York Rite Bldg. Ass’n, 843 N.E.2d 250, 253–54 (Ohio Ct. App. 2005) (holding that Cincinnati did not serve property owner with actual notice of public nuisance hearing when city continued to send notice to building that was known to be vacant).


130. See Lucy May, Preservationists, Officials Try for Cincinnati Demolition Options, CINCINNATI BUS. COURIER, (Oct. 19, 2009), http://www.bizjournals.com/cincinnati/stories/2009/10/19/story8.html?page=all (criticizing the city’s move to demolish an historic building that has been deemed a fire hazard and a public nuisance).

131. Id.

132. Id.

133. See OVER-THE-RHINE FOUND., supra note 25 (illustrating how the system for dealing with vacant and abandoned properties in Cincinnati is supposed to operate compared to how it actually operates); Lucy May, Inspectors Lead City Through Raze-Rebuild Cycle, (Nov. 23, 2009), http://www.bizjournals.com/cincinnati/stories/2009/11/23/story18.html?page=all (discussing some of the administrative hurdles that impede prosecution of building code violations).

134. A Plan for Preservation, Part II, supra note 59, at slides 29–32 (discussing how several owners of historic buildings in OTR have continued to purchase properties while claiming the financial inability to maintain the ones they already own and that one such property owner was sentenced to ninety days in jail rather than comply with abatement orders).

135. Id.

136. See LeMaster, supra note 100.
to bring the building up to code, but funding for such a program has been lacking.\footnote{137}{See Lucy May, \textit{Gap in Funding Stalls Over-the-Rhine Receivership Movement}, \textit{CINCINNATI BIZ. COURIER}, (Apr. 26, 2010), http://www.bizjournals.com/cincinnati/stories/2010/04/26/story10.html?page=all (discussing the city’s lack of matching funds for implementing a receivership program).}

In addition to the enforcement hurdles faced by building inspectors and other city officials, Cincinnati’s public nuisance ordinance clearly favors demolition. The language at the outset of the building code states that it shall be “liberally construed in order to promote public safety, health and welfare.”\footnote{138}{\textit{CINCINNATI, OHIO, BLDG. CODE} § 1101-07 (2002).} While this is customary language that ensures a valid exercise of the city’s police power, it also operates as a rationale for the city to undertake aggressive demolition practices. Moreover, the ordinance explicitly creates a presumption of demolition unless the property owner obtains authorization from the city.\footnote{139}{\textit{Id.} § 1101-57 (2012).} In effect, the burden falls on the property owner to convince the city that rehabilitation is feasible by developing a workable plan and making reasonable strides to implement it within the narrow confines of the abatement period, typically thirty, sixty, or ninety days with limited opportunity for renewal. Any error in judgment on the part of the property owner in budgeting time for repairs or obtaining the necessary financing results in aggressive action from the municipality in ordering demolition of the property, even when the property owner otherwise has made good-faith efforts to rehabilitate the structure.\footnote{140}{See Hotel Innovations, Inc. v. City of Dayton, No. 19595 2003 WL 1596303, at *3 (Ohio Ct. App. 2003) (holding that development company’s failure to adhere to the deadlines of their rehabilitation plan was their own inexcusable neglect and that city could intervene and demolish nuisance property).} A mere error in properly boarding a nuisance building against trespassers can result in a municipality ordering demolition.\footnote{141}{See Burroughs v. City of Cleveland, No. 60036, 1992 WL 41910, at *2 (Ohio Ct. App. 1992) (upholding city’s demolition order, because property owner had not sufficiently boarded all windows on his building).}

In essence, the city’s actions are punitive toward the property owner at the expense of both the historic building and the greater community. The city is undoubtedly trying to protect the health, safety, and welfare of the public by abating what it sees as hazardous conditions, but little justification exists for overlooking other options that may save the building. The courts generally look at the quantity and severity of the property’s defects in determining whether an emergency situation exists and do not consider the actual imminence of public harm.\footnote{142}{See McMaster v. Hous. Appeals Bd. of Akron, No. 18226, 1997 WL 775674, at *4 (Ohio Ct. App. 1997) (upholding city’s demolition order against property owner’s claims that nuisance...
time a municipality may have been able to grant a property owner to rehabilitate the structure would not have necessarily endangered the public.

Even under the best of circumstances, motivated property owners encounter obstacles in rehabilitating their properties. Money may be scarce, particularly in neighborhoods that are an economic risk, and unforeseen circumstances can slow down or stall rehabilitation efforts. The window for abatement seems so prohibitively narrow that it appears the city has no real intention of encouraging rehabilitation but merely expediting the inevitable end—demolition. And municipalities generally do not offer financial assistance to cash-strapped property owners. Furthermore, once a building has been declared a nuisance or encumbered with a lien, the owner encounters more hurdles in securing loans or other financing on the property, and the clouds on the title may render it unmarketable and prevent the property’s resale.¹⁴³

Because demolition, as compared to other municipal regulations that may limit property rights, is so onerous to the property owner, the courts generally ascribe to a relatively high procedural due process bar. It requires ample notice, opportunities for appeal, and all the benefits of public hearings at which a property owner and other interested parties can give testimony and submit evidence in dispute of the city’s determination.¹⁴⁴ On their face, these procedural safeguards allow the property owner to buy time in developing and implementing a rehabilitation plan or, in the very least, comply with the city’s minimum demands for securing the building against trespassers. In their application, however, the procedures can draw out the process so long that the building inevitably suffers further deterioration. Property owners already struggling financially to comply with the

could have been abated without demolition). In McMaster, the court found that the city had presented a substantial amount of evidence that a nuisance existed but failed to weigh the necessity of demolition against the possibility of rehabilitation. While the court found the property owner’s rehabilitation efforts insufficient for abating the nuisance, it failed to consider the actual feasibility of rehabilitation. Id. See also Roberts v. City of Jackson, No. 484, 1984 WL 3484, at *4 (Ohio Ct. App. 1984) (rejecting property owners’ claim that demolition was not reasonably necessary to abate the nuisance and that city should have rehabilitated rather than demolished the structure). In Roberts, the contractor hired to demolish the property stated in his affidavit: “I figured that it would take more than $15,000.00 to fix it up. At a minimum, the building would have to have an all new back end, an all new front porch, an all new roof, all new drywall, all new windows, all new electrical wiring, and all new plumbing fixtures.” Id. at *2. The court focuses its inquiry more on the estimated cost of these repairs rather than the feasibility of rehabilitation or the immediacy of the emergency conditions. Id. at *3–4.

¹³⁴. See Diana A. Silva, Land Banking as a Tool for the Economic Development of Older Industrial Cities, 3 DREXEL L. REV. 607, 616 (2011) (emphasizing unmarketability of vacant properties and noting that local tax and code enforcement liens encumber vacant properties, decreasing their value, and that back taxes may exceed property’s fair market value).

¹⁴⁴. See City of Cleveland v. Bedol, No. 93061, 2010 WL 1795351, at *3 (Ohio Ct. App. 2010) (holding that “where a city has failed to provide a property owner with an opportunity for hearing or appeal prior to the razing of property, the city has denied the owner due process of law”).
minimum requirements likely will not be addressing significant maintenance issues with their buildings during the extended appeal process. Property owners who have no interest in rehabilitating their buildings, but are more interested in appealing the associated costs of nuisance abatement, will allow their building to further deteriorate during the process. The more a building continues to deteriorate, the more of a nuisance it becomes and the more expensive the rehabilitation or minimum code compliance requirements will become. Too frequently, by the time the aggrieved property owner has reached the court, the city has already demolished the building, and the owner can obtain only compensation for the demolition costs.145

C. Neighborhood Stabilization Program

While municipalities, like Cincinnati, often lack the financial resources to effectively address urban blight, federal programs have stepped in to help fund revitalization efforts. The Neighborhood Stabilization Program (“NSP”), administered by HUD, was authorized under the Housing and Economic Recovery Act of 2008 “for the purpose of stabilizing communities that have suffered from foreclosures and abandonment.”146 Under the NSP, local governments are free to develop their own programs and funding priorities, but they must use at least twenty-five percent of the funds for the redevelopment of abandoned or foreclosed residential properties for families whose incomes do not exceed fifty percent of the area median.147 A local government may not simply undertake broad community development activities or “prevent or eliminate slums and blight.”148 Eligible uses for NSP funds include redevelopment of residential properties, rehabilitation of foreclosed or abandoned homes, establishment of land banks for foreclosed homes, demolition of blighted structures, and the redevelopment of demolished properties.149 A survey of cities that received first-round NSP funds reveals that all the cities are using the funds to acquire vacant and abandoned properties, ninety-two percent of

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147. Id.
148. Id.
149. Id.
the cities are rehabilitating structures, and sixty-eight percent are demolishing structures.\textsuperscript{150}

Cincinnati was awarded more than $8.3 million in first-round NSP funds and has been strategically targeting ten residential neighborhoods with three primary goals: (1) housing purchase and redevelopment; (2) affordable housing; and (3) hazard abatement.\textsuperscript{151} The city acquired a second round of NSP funds to target seven neighborhoods in which stagnant population growth, high unemployment rates, and weak housing markets have led to high foreclosure and vacancy rates.\textsuperscript{152} Finally, a third round of $3.16 million was allocated to aid four “high need” neighborhoods.\textsuperscript{153} At the outset of the program, the city identified 738 vacant buildings in the target neighborhoods and 639 bank-owned buildings.\textsuperscript{154} At the close of the first quarter of 2012, the last date of available data, the city had used NSP funds to demolish 182 structures.\textsuperscript{155} This number exceeded the city’s projection of 166 units by the close of the March 2013 deadline.\textsuperscript{156} The city’s hazard abatement—i.e., demolition—budget significantly outpaced the acquisition and rehabilitation budget.\textsuperscript{157} Again, while the city urges that these buildings were a hazard, there is no evidence that the NSP funds could not have been used to abate those hazards at little to no extra cost.\textsuperscript{158} Since the NSP allows the municipality to implement its own plan, within the parameters of the program’s guidelines, there is no oversight to determine whether or not the city’s actions legitimately further the revitalization goals.

One of the major shortcomings of the NSP is that it targets foreclosures, which, as stated in Part I, do not always require the same solutions as other distressed properties. The remedies must be tailored to the individual circumstances. Municipalities have been relying heavily on demolishing

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152. Id.
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153. Id.
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155. Id. at 45.
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156. Id.
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157. Id.
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158. Demolition is often perceived as a less costly option than rehabilitation, but often the numbers tell a different story. Municipalities often fail to research actual costs or rely heavily on one biased cost estimate. See PENN DESIGN, MAINTENANCE AND RESOURCE MANUAL: REHABILITATION VS. NEW CONSTRUCTION, http://www.design.upenn.edu/his_pres/student/studio2003/manual/rehab.htm (discussing the costs of rehabilitation versus the costs of new construction and illustrating the financial advantages that rehabilitation offers). See also RYPPKEMA, supra note 43 (providing case studies to illustrate that new construction is more costly than preservation).
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nuisance properties to make way for new development, banking vacant land for resale, and seizing foreclosed homes and transferring them to creditworthy buyers. These tactics do not work for places like Cincinnati’s OTR and other distressed urban neighborhoods. These neighborhoods are far from stable, and many buildings have gone through years of deterioration. Properties cannot quite as simply be resold to new buyers when those buyers cannot necessarily obtain credit to purchase and rehabilitate the property. Additionally, the aggressive demolition tactics used to clear deteriorating foreclosed homes are more problematic in these distressed urban neighborhoods. First, the buildings themselves are often significant from a historical perspective. Second, the vacant lots left in the wake of demolition are not as likely to be redeveloped for the same reasons the buildings themselves stood vacant: economically distressed neighborhoods have a weak real estate market. Therefore, municipalities must adopt distinctive solutions for the distinctive problems faced by these neighborhoods. It is clear that Cincinnati and many other municipalities are taking a one-size-fits-all approach to dealing with vacant and abandoned properties.

Another major shortcoming in Cincinnati’s program goals is their narrow focus on housing. This is not surprising, since the NSP was established for the purpose of addressing foreclosed properties, which are overwhelmingly residential. However, many urban core neighborhoods are characterized by their mixed-use commercial and residential building stock, and in economically depressed neighborhoods, most of the storefronts sit empty. A municipality’s failure to address commercial properties results not only in the potential loss of valuable historic buildings, but it also hinders the ability of the community to revitalize and stabilize neighborhoods. Affordable housing may suffer without proximity to affordable businesses and job opportunities, and neighborhoods without a healthy mix of businesses struggle to attract new residents. Therefore, commercial revitalization should be a priority.

D. Land Reutilization Corporation

159. See THE U.S. CONFERENCE OF MAYORS, supra note 56, at 6–13 (summarizing the actions of several municipalities in abating the problem of vacant and abandoned foreclosure properties).

In recent years, many communities have established land banks to address the growing foreclosure problem. A land bank is a “governmental entity that focuses on the conversion of vacant, abandoned, and tax-delinquent properties into productive use.” In simpler terms, a municipality operating a land bank may assume title to tax-delinquent properties, rehabilitate or demolish buildings, and then transfer the properties to new developers or homeowners who will put them back into productive use. One important function of a land bank is the ability to clear title to the property to ensure effective resale. While the land bank model allows municipalities to acquire improved lots and rehabilitate the existing buildings, many municipalities choose to focus on acquiring vacant lots for redevelopment. These cities find vacant lots easier to maintain and that the resulting open land provides more flexibility in shaping the redeveloped neighborhood. “[I]f a land bank assembles several parcels containing small, one-family homes, a developer may wish to demolish all of them and instead build larger homes, condominiums, or mixed-use development. This type of strategic acquisition and release which promotes economic development represents the ultimate goal of a land bank entity.”

Ohio retooled its land bank legislation in 2009 and greatly expanded the authority of its counties to acquire tax foreclosed properties. The new legislation authorizes the establishment of land reutilization corporations (“LRC”). The LRC must adopt a board of directors and draft a
development plan. The organization may then acquire, hold, and transfer property and borrow money for the purposes of implementing the plan. Hamilton County’s LRC maintains a database of banked properties and a blog that lists foreclosed properties for sale and provides other information that will help prospective bidders navigate the process. The blog currently lists 462 properties for sale, including vacant lots and condemned or vacated buildings of varying ages and conditions. As of 2012, the county received $5.8 million through the Moving Ohio Forward Demolition Grant Program, a newly minted state grant program that disburses demolition funds to counties with functional land banks, and put up matching funds of $5.3 million. Funding is available for the county to demolish at least seven hundred properties and as many as one thousand properties. Cincinnati has aggressively pursued grant funding of its own and pledged $3.49 million in matching funds for 2013. The city has more than three hundred demolition-ready properties but could demolish up to 450 under the grant program.

The land bank system, at both the state and municipal levels, is inherently a very valuable tool for economic development. The land bank can hold existing buildings, as well as vacant lots, and help match properties in distressed areas with interested buyers. However, most land banks favor demolition and the aggregation of vacant lots for large-scale development. Putting aside the loss of historic building fabric, this type of

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171. Id.
172. Id.
175. OHIO ATTORNEY GENERAL’S OFFICE MORTG. FORECLOSURE UNIT, MOVING OHIO FORWARD GRANT PROGRAM (2012), www.ohioattorneygeneral.gov/OhioAttorneyGeneral/files/f4/f4882fe3-4cac-40c4-8a29-a245a8b0b157.pdf. Ohio’s Attorney General Mike Dewine fueled this aggressive blight remediation program at the start of 2012 with the goal of cleaning up over 100,000 properties in Ohio. President of the Hamilton County Commission Greg Hartmann stated that while demolishing properties is the goal, the empty lots should not be the end result. The goal is large-scale redevelopment for residential and retail use, but Hartmann concedes that funding is currently lacking for moving projects ahead, Lisa Bernard-Kuhn, Deal Funds Blight Fight, CINCINNATI.COM (Feb. 13, 2012), http://news.cincinnati.com/article/20120213/BIZ/302130110.
177. Id.
178. Id.
179. Id.
180. See, e.g., GENESEE CNTY. LAND BANK, http://www.thelandbank.org/history.asp (last visited Sep. 08, 2013) (“The objective [of the land bank] is to restore the integrity of the community by
land-use plan is troublesome at best. In the most economically distressed neighborhoods, developers may be unwilling to risk such large-scale projects. Meanwhile, the land sits vacant indefinitely. And even more prosperous neighborhoods may fall victim to market stagnation. Any amount of time that the aggregated lots remain vacant is detrimental to the community—the lots remain untended and become a nuisance, people become isolated in the urban prairie or move out of the neighborhood, more buildings become vacant and abandoned, those buildings are demolished, and the process starts anew. The pressure to aggregate lots for large, contiguous development makes demolition even more attractive to municipalities.

Adding fuel to the fire is the Moving Ohio Forward Demolition Grant Program, which disburses funds only for demolition. In fact, the stated goal of the program is to “maximize the number of demolitions of blighted, vacant or abandoned residential structures.” Blight is defined in accordance with the state eminent domain statute, discussed in Part III, granting the individual counties with broad discretion to make demolition determinations. The guidelines further specify that funds shall not be used for property maintenance, either before or after demolition. Counties must take advantage of the money when it is available and spend it in less than two years. The solution: bulldoze as much as possible, while the funding is available, and worry about the consequences later. However, when “later” arrives and the cities and counties do not have the funds to kick-start development, they cannot revive the demolished buildings. Even supporters of historic preservation find it hard to pass up the ample grant funds, reasoning that if money for rehabilitation is lacking, at least the deleterious harms of blighted properties can be eradicated with the

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181. OHIO ATTORNEY GENERAL’S OFFICE, supra note 175, at 7. See Paula Boggs Muething, Demolition Just One Way to Fight Blight, CINCINNATI BUS. COURIER (Apr. 20, 2012), http://www.bizjournals.com/cincinnati/print-edition/2012/04/20/demolition-just-one-way-to-fight-blight.html?page=all. In addition to providing matching funds to municipalities, the program unlocks the limits on demolition placed on the third round of the NSP, allowing 100% if third round funds to be used for demolition, rather than just ten percent. Id.

182. OHIO ATTORNEY GENERAL’S OFFICE, supra note 175, at 7.

183. OHIO REV. CODE ANN. § 1.08 (2007).

184. OHIO ATTORNEY GENERAL’S OFFICE, supra note 175, at 8.

185. OHIO ATTORNEY GENERAL’S OFFICE, supra note 175, at 6. The Attorney General accepted the first round of grant applications in May and July 2012, and all work must be completed by December 31, 2013. Id.
demolition funding.\textsuperscript{186} Basically, the Moving Ohio Forward program has turned land banking, an otherwise effective revitalization tool, into a modern day “slum” clearance initiative.\textsuperscript{187}

PART III. IMPLEMENTING AGGRESSIVE MUNICIPAL-DRIVEN REHABILITATION LEGISLATION

A. Comprehensive Vacant Building Registration Program

A comprehensive vacant building registration program is an important first step in addressing vacant and abandoned buildings because it affords the city an opportunity to inventory the extent of the problem, monitor conditions, and raise funds for rehabilitation. As stated in Part II, Cincinnati’s existing VBML was upheld in Etzler as a valid exercise of the city’s authority to regulate building conditions, and the court found no facial violations of either substantive or procedural due process rights. In implementing a more comprehensive vacant building registry, the city should ensure that it has the authority under both the police power and the state enabling legislation.

1. Legal Opportunities and Challenges

Municipalities find the authority to regulate the public health, safety, and welfare under the police power, and regulating building conditions falls squarely within that power.\textsuperscript{188} In 1926, in Village of Euclid v. Ambler Realty Co., the Supreme Court upheld land-use regulations against substantive due process challenges under the Fourteenth Amendment.\textsuperscript{189} Over the past century, the Court has increasingly adopted a more permissive reading of “public health, safety, and welfare,” even finding constitutional such activities as aesthetic regulations and historic preservation.\textsuperscript{190} While any use

\textsuperscript{186} Muething, supra note 181. “Demolition is not the best solution for many of our distressed structures that contribute to our regional quality of life and sense of identity. But this . . . legislation is welcome news at a time when the need for dollars to demolish structures and stabilize neighborhoods is growing, while the . . . local government entities to fund such programs is diminishing.” Id.

\textsuperscript{187} See Restore our Neighborhoods Act of 2012, H.R. 4210, 112th Cong. (2012) (seeking to provide $4 billion in federal funds for residential and commercial demolition projects). The failed proposal, which was sponsored by three Ohio Representatives, had all the earmarks of the federal urban renewal program that wiped out historic urban neighborhoods from the 1950s through the 1970s. Id.

\textsuperscript{188} OHIO REV. CODE ANN. § 3:9 (West 2012).

\textsuperscript{189} See Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 397 (1926) (upholding Euclid’s cumulative zoning plan against plaintiff’s claim that it diminished his property value).

of the police power must be crafted to avoid implicating constitutional rights, the aggressive rehabilitation of vacant and abandoned buildings is undoubtedly a valid exercise of the police power, since the city would be eradicating a problem that impacts the physical, aesthetic, and economic welfare of the public.

The police power is one that has been reserved to the states through the Tenth Amendment but may be delegated to municipalities through state enabling legislation.191 Ohio municipalities operate under a home rule charter, which affords the local body greater self-governing authority.192 Pursuant to the Ohio Constitution, municipalities have the “authority to exercise all powers of local self-government and to adopt and enforce within their limits such local police, sanitary and other similar regulations, as are not in conflict with general laws.”193 A state statute takes precedence over a municipal ordinance if: (1) the ordinance is in conflict with the state statute; (2) the ordinance is an exercise of the police power; and (3) the statute is a general law.194 A general law is one that is part of a comprehensive legislative enactment that promotes statewide uniformity and generally prescribes a rule of conduct upon the citizenry.195 A general law must also set forth police, sanitary, or similar regulations rather than merely grant or limit a municipality’s legislative power.196 At the judicial level, the courts are extremely deferential to the decisions of the municipality—i.e., an ordinance maintains a strong presumption of constitutionality197 and will be upheld if it bears “a real and substantial relationship to the public health, safety, morals or general welfare, and . . . is not unreasonable or arbitrary.”198 Furthermore, any doubt about the city’s legislative power must be resolved in favor of the local governing body.199 Thus, Ohio municipalities enjoy a wide berth for adopting and implementing ordinances that protect the health, safety, and welfare of their citizens.

Assessments are key to the registration process because the municipality must leverage financial resources to remedy adequately the nuisance. Cincinnati’s VBML fees have been upheld because the fees are

192.  I d . § 4 : 8 1 .
193.  O H I O C O N S T . , a r t . X V I I I , § 3 .
194.  C l e v e l a n d v . S t a t e , 9 7 4 N . E . 2 d 1 2 3 , 1 2 7 ( O h i o C t . A p p . 2 0 1 2 ) .
195.  I d .
196.  I d .
197.  S t a t e v . K n i g h t , 7 4 9 N . E . 2 d 7 6 1 , 7 7 1 ( O h i o C t . A p p . 2 0 0 0 ) .
198.  O tt a w a C t y , B d . o f C o m m r s . v . M a r b l e h e a d , 7 1 1 N . E . 2 d 6 6 3 , 6 6 6 ( 1 9 9 9 ) ( q u o t i n g C a n t o n v . W h i t m a n , 3 3 7 N . E . 2 d 7 6 6 , 7 7 1 ( 1 9 7 5 ) ) .
199.  C i t y o f C l e v e l a n d v . B r o o k s , 9 7 4 N . E . 2 d 2 1 7 , 2 2 0 – 2 1 ( 2 0 1 2 ) .
used to provide a direct benefit to the individual properties upon which they have been assessed.\textsuperscript{200} The \textit{Etzler} court did not reach the issue of the excessiveness of the fees but stated that the fees should be proportionate to remedying the harm and should not be unduly punitive.\textsuperscript{201} The VBML program uses the money it collects to inspect buildings, enforce codes, and provide municipal services to the registered properties. The fees currently do not cover demolition or rehabilitation costs; if the city undertakes one of those abatement procedures, it typically attaches a lien to the property. However, when the property owner fails to pay off the lien, the city loses out on the money it initially fronted for the demolition or rehabilitation costs and its scarce resources are further depleted. The ability to raise money in advance to perform the necessary rehabilitation work is key to the success of any abatement program and will minimize the city’s reliance on demolition grant funds from other state or federal programs. An assessment can be properly tailored to meet the city’s rehabilitation needs. The following section recommends a more comprehensive registration program that targets a wider range of vacant and abandoned buildings; grants more flexibility to owners seeking to rehabilitate their properties; incorporates a fee structure that is not unduly burdensome but allows the city to leverage more funds to assist rehabilitation efforts; and provides more localized oversight.

2. Recommendations

Cincinnati’s vacant building registry should be expanded to include any property that: (1) has been vacant or abandoned for more than ninety days; (2) is not currently undergoing rehabilitation or in any stage of rehabilitation planning; and (3) is not actively and reasonably being marketed. The burden should fall on the property owner to demonstrate that the building need not be registered. If the property owner demonstrates that the building is being rehabilitated or is on the market, the city should revisit the case after another ninety days to ensure the owner is still reasonably attempting to put the property to good use.

All registered buildings should be secured against the weather and against trespassers. Buildings should be inspected monthly to ensure that conditions are not deteriorating and that the building remains secure. If at any point during the first year an otherwise sound building violates a building code or suffers serious damage—e.g., fire damage or flooding—

\textsuperscript{201} Id.
the property should be placed immediately in the nuisance abatement program. For otherwise sound buildings, the property owner should have one year to put the property back into productive use without intervention; if the owner has not made a reasonable and good-faith effort to rehabilitate or market the building during that year, it should be placed in the nuisance abatement program.

The fee schedule should be graduated on a monthly basis, starting out low and increasing exponentially each month the building sits empty. Fees should cover the cost of administering the program, providing municipal services, assisting property owners with rehabilitation costs in situations of undue hardship, and covering the costs of nuisance abatement in situations where the city is unable to recoup abatement costs from delinquent owners. The fees should be severe enough to deter bad behavior yet lenient enough to allow good-faith property owners to save money for maintaining or rehabilitating their buildings. A first-time failure to pay a fee should result in a stiff penalty, and a second failure should result in prosecution in housing court. However, fees should be waivable on a showing of undue hardship.

Each neighborhood or district should organize a community development corporation that oversees the registration and inspection processes, assists property owners in drafting rehabilitation plans, and collects and disburses funds.

B. Expanding the Public Nuisance Doctrine to Allow for Early Municipal Intervention

Public nuisance abatement remains a useful tool for remediating the impacts of vacant and abandoned buildings, as long as it is tailored toward rehabilitation and code compliance rather than demolition. While there is a need for municipalities to condemn and demolish buildings that pose a serious public hazard, the exercise of this broad power should be undertaken only in carefully selected situations. Public nuisance doctrine is well-suited to address situations in which an individual property owner is unwilling or unable to bring a building up to code. In these cases, the municipality must be able to intervene. The public nuisance doctrine is flexible enough to allow Cincinnati to reconsider the current system under which it operates.

1. Legal Opportunities and Challenges

Public nuisance abatement is inherent in any local government’s power to regulate the health, safety, and welfare and has been broadly upheld
against both substantive due process and regulatory takings challenges. The Ohio legislature has already enacted laws that authorize municipalities to regulate buildings, abate nuisances, appropriate property, and undertake a number of other activities related to protecting the public health, safety, and welfare. These state laws merely grant or limit a municipality’s legislative power and do not, therefore, preempt the ability of the municipality to regulate in that area if it so chooses. Furthermore, the language in these statutes is broad enough to give municipalities wide discretion to enact policies that are tailored to individual conditions and challenges. As stated in Part II, Cincinnati’s building code deems any “dangerous and unsafe” premises a public nuisance and enumerates five structural defects that constitute such dangerous and unsafe conditions. As this public nuisance requirement is more restrictive than the definition outlined in the state statute, which allows for a determination that any structure that threatens the public health, safety, and welfare by reason of abandonment constitutes a public nuisance, the city should be able to draft an ordinance that allows for municipal intervention upon a lesser showing of nuisance than severe structural defects. More aggressive intervention on the part of Cincinnati to force rehabilitation of vacant and abandoned buildings and return these buildings to productive use finds no conflict with any general laws of the state.

Ohio’s public nuisance jurisprudence is well developed and has swelled in recent years with claims of insufficient notice, improper demolition, and inverse condemnation. The validity of public nuisance suits was guaranteed by the Ohio Supreme Court in Solly v. Toledo, in 1966. Since then, the courts have broadly upheld a municipality’s power to remediate conditions that threaten the public health, safety, and welfare. While the terms of the state statute are broad enough to encompass a range of conditions, the courts have added a judicial gloss to the municipal power that places some procedural limits upon its use.

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202. See Village of Euclid v. Ambler Realty Co., 272 U.S. 365, 386–88 (1926) (inferring that a municipality already has the power to regulate nuisance conditions and deciding whether the existence of one type of use in the wrong area constitutes a nuisance); Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1029 (1992) (noting that a regulation will not constitute a taking if it “inhere[s] in the title itself, in the restriction that background principles of the State’s law of property and nuisance already place upon land ownership”).

203. See generally OHIO REV. CODE ANN., §§ 701.01–765.04 (discussing powers of municipal corporations when regulating buildings and property).

204. CINCINNATI, OHIO, BLDG. CODE, § 1101-63 (2011).

205. OHIO REV. CODE ANN., §§ 715.26–715.263.

206. Solly v. City of Toledo, 218 N.E.2d 463, 466 (Ohio 1966) (holding that a “charter city may enact legislation authorizing summary abatement of public nuisance and the destruction of property used in maintaining such nuisances when reasonably necessary to effectuate their abatement”).
The courts are deferential to the substance of local public nuisance ordinances, as long as they remain focused on public and not private harms, and the public harm itself is often defined so broadly that it need not be actually physical.\textsuperscript{207} The courts’ primary focus has been on guaranteeing that affected parties have sufficient notice of the action—that both the statute itself provides a reasonable basis for affording notice and that the local officials have actually exercised the notice procedures properly—and that the type of harm alleged can be traced to the actual misconduct of the defendant.\textsuperscript{208}

Notice is a critical component of the constitutional due process guarantees, and when private property rights are involved, the courts are fastidious about assessing the procedures carried out by local officials.\textsuperscript{209} When demolition is involved, the courts have properly required a showing of actual notice to the appropriate party responsible for maintaining the property.\textsuperscript{210} Even more critical to the process is the requirement of a public hearing. Courts find that all procedural due process mandates have been met when the aggrieved parties have had the opportunity to challenge the nuisance determination in a public forum.\textsuperscript{211} However, due process is undermined by the fact that property owners must present sufficient evidence to counter the nuisance claim, rather than the municipality itself proving danger. This burden creates a large hurdle for the owner in protecting his or her property rights. Furthermore, the process suffers when the municipality determines that the public is in imminent peril. While it is

\begin{footnotes}
  \footnotetext[207]{See Columbus v. Bahgat, No. 10AP–943, 2011 WL 2586841, at *4 (Ohio Ct. App. 2011) (holding that property owner’s failure to comply with historic district guidelines when replacing windows on building a public nuisance).}
  \footnotetext[208]{See City of Cleveland v. Ameriquest Mortg. Secs., Inc., 615 F.3d 496, 505 (6th Cir. 2010) (holding that financing subprime loans is completely distinct and not directly linked to the alleged harms of property neglect, fires, looting, and drug dealing).}
  \footnotetext[209]{See Turner v. Englewood, 944 N.E.2d 731, 735 (Ohio Ct. App. 2010) (emphasizing that “[a] hearing before a taking—especially a taking-by-demolition—is critical”); City of Cleveland v. Bedol, No. 93061, 1096 7195351, at *3 (Ohio Ct. App. 2010) (stating that “where a city has failed to provide a property owner with an opportunity for hearing or appeal prior to razing of property, the city has denied the owner due process of law”) (citing City of Cleveland v. W.E. Davis Co. (July 18, 1996), Cuyahoga App. No. 69915); Holtz v. City of Toledo, No. L-05-1217, 2006 WL 1793684, at *3 (Ohio Ct. App. 2006) (“Procedural due process demands at a minimum that one who is to be deprived of property by the state be given notice of the action and an opportunity to be heard.”); See Nucklos v. Bd. of Bldg. Appeals, No. 2001CA00092, 2001 WL 1606806, at *4 (Ohio Ct. App. 2001) (finding that property owners were unable to comply with repairs to building because they were not given notice of the “particulars” of the unsafe conditions).}
  \footnotetext[210]{See Cincinnati v. York Rite Bldg. Ass’n, 843 N.E.2d 250, 253–54 (Ohio Ct. App. 2005) (holding that Cincinnati did not serve property owner with actual notice of public nuisance hearing when city continued to send notice to building that was known to be vacant).}
  \footnotetext[211]{See, e.g., Bartoe v. City of Wellston, No. 524, slip op. at *3 (Ohio Ct. App. Sept. 26, 1986) (holding that property owner’s attendance at public hearing satisfied notice requirement even though the actual notice was not properly delivered).}
\end{footnotes}
true that the courts will require a higher showing from the municipality that the imminent peril exists.\textsuperscript{212} This judicial intervention occurs only after the property owner has filed a negligent demolition action against the municipality. The courts may find that the local officials failed to satisfy the requirements of imminent peril, but the building is already lost. Whether this “process” has adequately protected the individual’s constitutionally protected property interests is questionable.\textsuperscript{213} Complicating this process even more is the fact that municipalities in Ohio are still largely immune from tort liability—i.e., the defendant cannot collect any damages from the municipality or its employees for wrongful conduct in carrying out discretionary duties.\textsuperscript{214} Because public nuisance determinations are discretionary, requiring a weighing of economic, safety, and other considerations, local officials are not deterred from taking dramatic action if all they stand to lose are the recouped demolition costs.

The threat of inverse condemnation (takings actions) also fails to deter municipalities from making hasty demolition decisions. A line of regulatory takings cases handed down from the Supreme Court over the past several decades addresses the role of nuisance in inverse condemnation claims.\textsuperscript{215} The Court in \textit{Lucas v. South Carolina Coastal Council} emphasized that “when a regulation is designed to prevent ‘harmful or noxious uses’ of property akin to public nuisances, no compensation is ow[ed] under the Takings Clause regardless of the regulation’s effect on the property’s value.”\textsuperscript{216} The reasoning behind this theory is that the behavior that constitutes a nuisance was never part of the bundle of sticks (property

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  \item \textsuperscript{212} See, e.g., Nucklos v. Bd. of Bldg. Appeals, No. 2001CA00092, 2001 WL 1606806, at *4 (Ohio Ct. App. 2001) (finding the notice of demolition sent by the city to a building’s owners insufficiently specific as to particular repairs and thus did not give owners a reasonable amount of time to bring the building up to code).
  \item \textsuperscript{213} See Goldberg v. Kelly, 397 U.S. 254, 268–69 (1970) (holding that a higher procedural due process bar may be required when an individual is deprived of certain constitutional rights). \textit{Goldberg} involved the termination of benefits to welfare recipients. The Court found that, although the state agency had granted recipients the right to a post-termination hearing, the hearing still did not satisfy the mandates of due process because it temporarily deprived them of their welfare benefits. Notable, however, is the Court’s willingness to extend the requirements of due process when certain rights are at stake. The Court stated that “[t]he opportunity to be heard must be tailored to the capacities and circumstances of those who are to be heard.” \textit{Id.}
  \item \textsuperscript{214} See Chalker v. Howland Twp., 74 Ohio Misc. 2d 5, 26 (1995) (holding that city officials, acting in their official capacities, could be afforded qualified immunity for wrongful demolition if the act was performed in good faith or under an objective, reasonable belief that it was lawful); See Champion Mall Corp. v. Champion Twp. Bd. of Trs., No. 2009-T-0102, 2010 WL 1840619, at *4–5 (Ohio Ct. App. 2010) (holding that township was entitled to sovereign immunity from trespass liability and wrongful demolition of shopping mall).
  \item \textsuperscript{215} This line of cases stems from Mugler v. Kansas, 8 S. Ct. 273, 287 (1887), in which the Court stated that “[t]he right to compensation for private property taken for public use is foreign to the subject of preventing or abating public nuisances.”
  \item \textsuperscript{216} \textit{Lucas v. S.C. Coastal Council}, 505 U.S. 1003, 1003 (1992).
\end{itemize}
rights) and that prohibitions on nuisance inhere in the title to the property. While municipalities should not be required to compensate property owners who create nuisance conditions and should be allowed to abate nuisances without fear of legal recourse, in reality municipalities can easily abuse this power by forcing the demolition of nuisance properties. Because the courts are so deferential to public nuisance determinations, Cincinnati should take the initiative to safeguard against such abuse in its ordinance.

In linking the public harm to the actions of the defendant, the courts have held that a municipality must show proximate cause—i.e., the nuisance condition must be connected to the action of the defendant. In most suits involving nuisance properties, the neglect of the owner in maintaining the building and complying with codes is clearly linked to the resulting deteriorated condition. While tax delinquency is one of the conditions that satisfies a determination of blight for the purposes of eminent domain, mere tax delinquency alone is not likely to result in deteriorated conditions if other factors are not present. Along this line of reasoning, the Sixth Circuit held that the act of predatory lending in and of itself was not directly linked with the property deterioration that resulted from the foreclosure crisis. However, the courts have squarely rejected the idea that a municipality must show that the public suffered a tangible injury—i.e., the local government need not wait until the public health hazard has actually caused harm to take steps to abate the nuisance. In one of its earlier public nuisance cases, the Ohio Supreme Court emphasized that “[a] municipality . . . is authorized to regulate and suppress all places that in its judgment are likely to be injurious to the health of its inhabitants.”

This Ohio Supreme Court precedent would appear to support a municipality’s determination that any building in a distressed neighborhood that stands vacant or abandoned could be abated before a hazardous situation occurs, thus avoiding the need to wait until the building is so deteriorated that demolition is the only perceived option. The existence of

217. Id. at 1004.
218. See City of Cleveland v. Ameriquest Mortg. Secs., Inc., 615 F.3d 496, 504 (6th Cir. 2010) (finding no proximate cause between financing subprime loans and the eventual neglect of foreclosed properties, because the and the neglected property conditions were too remote to ascertain whether or not they were a result of the impact of the lending).
219. Id. at 505.
221. Id. at *4.
strong data that demonstrate the likelihood of such a property becoming a nuisance would satisfy the condition that the harm be “more than fanciful.”

However, Cincinnati must be wary of drafting a statute that merely states that any vacant or abandoned property is a public nuisance subject to abatement. This type of automatic determination by ordinance strips property owners of their due process rights. Accordingly, the city must still allow a public hearing in order to weigh the evidence for and against the nuisance and make a showing that the condition attached to that specific property on those facts and circumstances is likely to create a nuisance.

One caveat to this permissive application of the public nuisance doctrine is that it also justifies demolishing buildings that have not yet caused any serious public harm. A municipality can safeguard against this abuse of the public nuisance power by adopting one set of conditions under which a municipality can abate a nuisance through rehabilitation and a second more stringent set of conditions under which a municipality may order demolition. It is also important to keep in mind that most public nuisance cases that come before the courts involve demolition orders. Rarely has the court ruled on a case involving a challenge to abatement through rehabilitation. Because of the severity, irreversibility, and significant economic loss involved in demolition, the courts no doubt cast a more scrutinizing eye toward the municipality’s actions in razing nuisance properties. The merits of abatement through rehabilitation, as a public policy, should guide courts in upholding aggressive intervention on the part of the city. The following section recommends a more comprehensive public nuisance ordinance that gives the city more flexibility to enforce rehabilitation, limits the authority of the city to demolish buildings, and provides more judicial involvement and aggressive prosecution of delinquent property owners.

2. Recommendations

The requirements for bringing public nuisance actions against buildings should be bifurcated into two prongs: (1) abating nuisance conditions with code enforcement and rehabilitation, and (2) dealing with conditions that are so hazardous as to warrant demolition.

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222. Id.
223. See Marathon Oil Co. v. Bd. of Zoning Adjustment, 339 N.E.2d 856, 860–61 (1975) (invalidating ordinance on procedural due process grounds because ordinance stated that all vacant gas stations are considered a public nuisance just on the fact of their vacancy alone).
The first prong of the ordinance, which addresses code enforcement and rehabilitation, should be drafted broadly enough to include all buildings that have been entered into the vacant building registration program for more than a year without any change in activity. The ordinance must do more than state that all registered vacant and abandoned buildings will be considered a nuisance. Rather, the ordinance should specify that any registered vacant or abandoned building will be found to be a nuisance with a showing that its condition threatens the public health, safety, and welfare. The ordinance should also include a preamble that states the goals of abating public nuisance and provides a summary of the findings on why vacant and abandoned buildings threaten the public welfare. Because demolition is not involved, the burden should fall on the property owner to present evidence at a public hearing that counters these claims.

The ordinance should also enumerate the ways in which the nuisance may be abated and under what conditions: e.g., bringing a building up to code, implementing a rehabilitation plan, or placing the building on the market. The list should be exhaustive, so that property owners are on notice of what types of action may be taken, but the terms should be flexible enough to adapt to new and unforeseen circumstances. The ordinance should expressly state that demolition is not a suitable method of abatement under these conditions.

The ordinance should provide for the appointment of a receiver—a community development corporation (“CDC”)—that will have the authority to enter the property to address code compliance issues. If a more comprehensive rehabilitation plan is necessary, the CDC should work directly with the property owner to develop and implement that plan. Each neighborhood or district should have its own CDC with this power to ensure that the needs of each neighborhood are addressed individually and efficiently. Rehabilitation plans can be tailored to the facts and circumstances of each case—such as requiring a preservation plan for historic buildings. A property that the city has ordered vacated because of code violations may be re-inhabited after the nuisance has been abated. If the owner wishes to rent the space or place the building on the market, the CDC will oversee that process to ensure the building will be returned to productive use within a reasonable time.

The second prong of the ordinance should provide a very limited opportunity for demolition only under a substantial showing of imminent peril to the public and a showing that no other action is feasible. Here, the burden must be placed on the municipality to present substantial evidence demonstrating that demolition is absolutely necessary. The ordinance should specify the types of conditions that are imminently perilous and under what conditions rehabilitating the building would not be feasible—
e.g., the building is so structurally deficient that undertaking any rehabilitation will endanger neighboring properties. An expedited appeals process in a housing court should be allowed for the property owner, and the city should be allowed to demolish the property only with a court order. The historic conservation board should maintain the authority to oversee properties that are historically significant and the power to deny a certificate of appropriateness for demolition.

In all public nuisance actions, when the property owner has failed to comply with orders or pay costs, the city should seek aggressive prosecution to force compliance or cover costs. When owners are absent and tax delinquent, the city should attach the property and then obtain a default judgment from the court. Further failures on the part of the owner will allow the city to seize the property through eminent domain.

C. Using Eminent Domain to Acquire and Rehabilitate Vacant and Abandoned Buildings

For a city to address proactively the problem of vacant and abandoned buildings, it must be able to exercise broad eminent domain authority. Code enforcement schemes are inherently flawed, particularly when a municipality is understaffed, property owners are unavailable, and prosecution is slow and ineffective. Even if a municipality is well-equipped to handle code enforcement, this process alone is only palliative and should serve as an intermediate step to more aggressive intervention. Under both current Supreme Court precedent and Ohio’s newly amended eminent domain statute, Cincinnati should be able to seize blighted properties for rehabilitation. In assessing the scope of the city’s power to acquire property it is necessary to examine the current eminent domain climate at both the federal and state levels.

1. Legal Opportunities and Challenges

The use of eminent domain for blight removal is firmly rooted within the nation’s takings jurisprudence. As early as 1954, in *Berman v. Parker*, the Supreme Court upheld the District of Columbia’s redevelopment plan for a blighted area of the city, which also involved the appropriation of properties that were not in and of themselves blighted but were part of the larger target area. The property owners argued that “[t]o take for the

224. *Berman v. Parker*, 348 U.S. 26, 35–36 (1954). Petitioners owned a department store on one of the impacted parcels. The store was not otherwise blighted but was located in the target redevelopment area in which 64.3% of the residential buildings were “beyond repair.” Id. at 30–31.
purpose of ridding the area of slums is one thing; it is quite another . . . to take a man’s property merely to develop a better balanced, more attractive community.” In response, the Court asserted:

It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled . . . . If those who govern the District of Columbia decide that the Nation’s Capital should be beautiful as well as sanitary, there is nothing in the Fifth Amendment that stands in the way.

Accordingly, the Court upheld the city’s broad interpretation of “blight,” holding that a property need not constitute a direct threat to the public health, safety, and welfare to be considered blighted. Furthermore, the Court recognized that when municipalities are undertaking large-scale eminent domain projects they need to engage in comprehensive planning over the “palliative” piece-meal approach that targets individual structures.

The Court returned to the issue of blight in *Kelo v. City of New London*, the landmark 2005 decision that validated a municipality’s exercise of eminent domain power for economic redevelopment and authorized the expansion of the “public use” requirement of the Takings Clause of the Fifth Amendment. The *Kelo* Court upheld the City of New London’s economic redevelopment plan, which resulted in the appropriation of many properties that were not blighted but merely situated in an economically depressed area, and the transfer of those properties to private individuals. The Court found that the public use requirement was satisfied because the project had a public purpose—the revitalization of a depressed city. Furthermore, the Court found that because the development was part of a comprehensive plan that was drafted with careful deliberation, the transfer

225. *Id.* at 31.
226. *Id.* at 33. While the Court upholds the city’s use of the eminent domain power for these aesthetic reasons, it in no way endorses the legitimacy of the actions for bringing about the desired change. They merely state that because Congress decided to take into account this wide range of values, it is not for the Court to “reappraise” them. *Id.*
227. *Id.* at 34–35. “It was believed that the piecemeal approach, the removal of individual structures that were offensive, would be only palliative. The entire area needed redesigning so that a balanced, integrated plan could be developed for the region, including not only new homes but also schools, churches, parks, streets, and shopping centers.” *Id.*
229. *Id.* at 475.
230. *Id.* at 486.
of these properties to private entities did not violate of the spirit of the Fifth Amendment.  

The Kelo Court fostered a broader understanding of the “public use” requirement, specifically affirming the city’s power to convey the acquired property to private entities.  

A well-established tenet of the Court’s eminent domain jurisprudence prohibits using the power to undertake “A to B” transfers—i.e., taking property from one individual and transferring it to another individual who may, theoretically, make better use of the parcel.  

This type of transaction contravenes the innate objective of the eminent domain power, which is to confer community—not individual—benefits.  

The Court in Hawaii Housing Authority v. Midkiff, articulated this point when it stated that “[a] purely private taking could not withstand the scrutiny of the public use requirement; it would serve no legitimate purpose of government and would thus be void.”  

Because eminent domain inherently operates as a restriction on absolute property rights, the limitation on A to B transfers serves to uphold the freedom of individuals to use their properties as they see fit within the confines of existing zoning and nuisance laws, and without concern that the government will seize it for a better use.  

However, as stated above, Kelo’s transaction was not a simple A to B transfer.  

Rather, several properties were acquired from individuals, and the resulting land was aggregated and passed to private individuals for a large redevelopment project that was part of the city’s coordinated economic revitalization plan.  

The Court conceded that some private individuals may benefit more than others, even when satisfying the

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231. Id. at 483-84. “To effectuate this plan, the City has invoked a state statute that specifically authorizes the use of eminent domain to promote economic development. Given the comprehensive character of the plan, the thorough deliberation that preceded its adoption, and the limited scope of our review, it is appropriate for us, as it was in Berman, to resolve the challenges of the individual owners, not on a piecemeal basis, but rather in light of the entire plan.”  

232. Id. at 480.  

233. Id. at 477. “The Public Use Clause, in short, embodied the Framers’ understanding that property is a natural, fundamental right, prohibiting the government from ‘tak[ing] property from A and giv[ing] it to B.’” Id. at 511 (alterations in original) (quoting Calder v. Bull, 3 Dall. 386, 388 (1798)).  

234. See Pa. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922) (stating that taking must be justified based on “reciprocity of advantage”—i.e. balancing burden on private property owner with benefit to public).  


236. See Kelo v. City of New London, 545 U.S. 469, 487–88 (2005) (stating that a property cannot be taken from one private individual and passed to another merely because that person would put it to more productive use).  

237. Id. at 472.  

238. Id. The Court justified the transfer of properties to a private entity, stating that “[i]t is only the taking’s purpose, and not its mechanics . . . that matters in determining public use.” Id. at 482. “The public end may be as well or better served through an agency of private enterprise than through a department of government . . . . We cannot say that public ownership is the sole method of promoting the public purpose of community redevelopment projects.” Id. at 487.
public use requirement, but refrained from equating this transaction with a direct A to B transfer.\textsuperscript{239}

When a municipality acquires vacant and abandoned buildings from private individuals and passes them along to other private individuals who will be financially better suited to rehabilitate and maintain them, the transaction on its face appears to be the type of A to B transfer that is prohibited under the Fifth Amendment, particularly when it appears that “B” would use the property more productively than “A.” However, an analysis of \textit{Midkiff}, which served as the basis for the Court’s controversial ruling in \textit{Kelo}, reveals that this type of transfer may in fact satisfy the mandates of the public use requirement, at very least the more expansive “public purpose” requirement promoted by the \textit{Kelo} Court. In \textit{Midkiff}, the State of Hawaii was seizing properties from a particular class of large landholders and transferring them to individual lessees in an attempt to break up the state’s land oligopoly.\textsuperscript{240} The Court upheld the state’s Land Reform Act against challenges that it violated the public use requirement, reasoning that (1) the state had a legitimate interest in breaking up the oligopoly and (2) the land transfers were part of a larger comprehensive plan that furthered the state’s goals.\textsuperscript{241} The Court emphasized that “[t]he Hawaii Legislature enacted its Land Reform Act not to benefit a particular class of identifiable individuals but to attack certain perceived evils of concentrated property ownership in Hawaii—a legitimate public purpose.”\textsuperscript{242} The \textit{Midkiff} approach resounds with Cincinnati’s goal of returning vacant and abandoned buildings to productive use—no identifiable class of individuals will benefit from the transfer of these properties. The city has a legitimate goal of seizing buildings from delinquent property owners, particularly speculative investors in possession of a large number of properties, and transferring them to responsible parties that have the financial means to invest in the buildings and stabilize the neighborhood.

Despite the \textit{Kelo} Court’s attempts to root its decision in well-established precedent, opponents read its controversial holding as treading on constitutional liberties.\textsuperscript{243} The controversy caused a ripple effect throughout the nation, as states hastily began amending their eminent domain legislation to prohibit the type of broad power authorized under

\begin{itemize}
  \item \textsuperscript{239} Id. at 485.
  \item \textsuperscript{240} Haw. Hous. Auth. v. Midkiff, 467 U.S. at 242 (1984).
  \item \textsuperscript{241} Id. at 245.
  \item \textsuperscript{242} Id.
\end{itemize}
Kelo. In 2007, Ohio formed the Eminent Domain Task Force, which was charged with rewriting the state’s eminent domain legislation to reflect the concerns of the post-Kelo regulatory climate. The new legislation was drafted during the 2007–2008 legislative session and formally adopted in 2011. In the interim, the state placed a moratorium on any exercise of the eminent domain power for economic development purposes. However, just under the wire, an important eminent domain case was decided before the Ohio Supreme Court. In Norwood v. Horney, the court struck down the City of Norwood’s eminent domain ordinance and held: (1) economic benefit alone is insufficient for satisfying the public use requirement; (2) the ordinance was void for vagueness; and (3) courts must apply heightened scrutiny when reviewing eminent domain ordinances. The court took particular issue with the city’s use of the phrase “deteriorating area” in the eminent domain ordinance, as opposed to “deteriorated area.” The court found the term “deteriorating” too prospective because the term applied to areas not yet blighted, and emphasized that eminent domain cannot be used for speculative purposes.

On the heels of Norwood, the Ohio statute redefined the scope of a municipality’s eminent domain power and reworked its definition of “blight.” The legislative history indicates that the state was seeking to prevent the broad application of eminent domain for economic development exercised by New London in Kelo. When a municipality condemns a property, the condition of that property must fall within the state statute’s definition of blight and, accordingly, a municipality cannot adopt an ordinance with a broader definition of blight than that incorporated into the state law. Despite its attempts to rein in the use of eminent domain for economic development purposes, the legislature may have inadvertently

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244. See Donald Sanders & Patricia Pattison, The Aftermath of Kelo, 34 REAL EST. L.J. 157, 168–70 (2005) (summarizing reactions of state legislatures to Kelo and noting that twenty-eight states proposed or passed legislation in 2005 to curb eminent domain for economic development).
246. Id.
247. S.B. 167, 126th Gen. Assemb., Reg. Sess. (Ohio 2005). Specifically, municipalities were temporarily prohibited from taking any private property not in a blighted area that would result in that property being vested in another private individual. Id.
249. Id. at 1145 (stating that “deteriorating area” is a “standardless standard”).
250. Id. See, generally, Sarah Sparks, Deteriorated v. Deteriorating: The Void-for-Vagueness Doctrine and Blight Takings Norwood v. Horney, 75 U. CIN. L. REV. 1769, 1779–83 (2007) (detailing the Ohio Supreme Court’s and lower courts’ discussions of “deteriorating” versus “deteriorated” in the city’s eminent domain ordinance).
252. Supra note 245.
opened the door for municipalities to wield broad power for a range of economic development activities. Ohio’s statute provides in pertinent part:

(B) “Blighted parcel” means either of the following: (1) A parcel that has one or more of the following conditions: . . . (c) Tax or special assessment delinquencies exceeding the fair value of the land that remain unpaid thirty-five days after notice to pay has been mailed. (2) A parcel that has two or more of the following conditions that, collectively considered, adversely affect surrounding or community property values or entail land use relationships that cannot reasonably be corrected through existing zoning codes or other land use regulations: (a) Dilapidation and deterioration; (b) Age and obsolescence; . . . (f) Noncompliance with building, housing, or other codes; (g) Nonworking or disconnected utilities; (h) Is vacant or contains an abandoned structure . . .

As such, a blighted parcel need not physically endanger the general health, safety, and welfare but may be one that is merely tax delinquent and in otherwise stable condition. Furthermore, the itemized list under subsection two encompasses a broad range of conditions that are open to subjective interpretation. While blight definitions do vary across jurisdictions, they typically incorporate common language, similar to that used in Ohio’s statute, and are often adopted word-for-word by the municipalities in each state.

In the wake of Kelo, many states adopted these terms in their hasty attempts to rectify what they saw as gaping holes in the public use requirement, and although the courts have yet to establish a solid body of case law regarding the constitutionality of these terms, their use clearly leaves substantial room for abuse. The few cases that have addressed blight definitions in recent years all suggest that a municipality can alleviate vagueness concerns by incorporating enumerated lists of conditions into their ordinances—i.e., it does not matter if one term on the list is vague and

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254. Id.
255. Id.
257. See id. at 610 (discussing how newly amended eminent domain statutes still leave room for abuse, particularly in regards to minority and low-income property owners).
2013] Re-stitching the Urban Fabric 217

open to interpretation if there are other conditions that must also be met.258
This reasoning is clearly faulty because a property owner must still be on
notice of what type of activity may potentially trigger an eminent domain
action. For example, if a statute requires that a property meet two
conditions, as specified in Ohio’s eminent domain law, one condition may
be straightforward, such as “lacking utilities,” but another condition may be
inherently vague, such as “deteriorated.” A building that is lacking in
proper utilities will not necessarily be subject to an eminent domain action;
the property owner must also navigate the murky waters of “deteriorated”
to determine if and when the property will be subject to condemnation.
Courts typically find a statute unconstitutionally vague if individuals “of
common intelligence must necessarily guess at its meaning and differ as to
its application.”259 Clearly the parameters of such terms as “deteriorated,”
“dilapidated,” “age,” and “obsolescence” are debatable and, consequently,
perniciously subjective.

The Norwood court further muddied the waters of the blight definition
when it erroneously held that a term like “deteriorating” is
unconstitutionally vague, while “deteriorated” is not. In practice, the
difference is virtually non-existent. The court’s reliance on the speculative
nature of “deteriorating” is misplaced; the court should have instead
focused on the inherent difficulty in interpreting either condition—the fact
that a deteriorated condition is one that already exists does not make the
term any more definite. Furthermore, the court’s reasoning is also flawed
when it states that speculative terms are inappropriate because what a
property “might become may be no more likely than what it might not
become.”260 While this is true, the court fails to consider that any currently
existing blight is merely that: currently existing. Any existing blight could
be rectified by a property owner at any time. When drafting an eminent
domain ordinance or acquiring properties, a municipality gambles on
existing conditions not changing and must make an educated guess about
what conditions are so extreme as to justify intervention. Deteriorating is an
active condition that may cease or be reversed; deteriorated is an existing
condition that may be rectified at any time.

So how does a municipality work with such indefinite conditions like
“deteriorated” and “dilapidated”? The conditions that satisfy these broad

258. See, e.g., Willoughby v. Taylor, 906 N.E.2d 511, 515 (Ohio Ct. App. 2009) (“We
believe that a reasonable interpretation of the language of the ordinance, with its assistive examples of
prohibited conduct, places a person of ordinary intelligence on fair notice of the conduct prohibited . . . .”).
terms may be almost infinite. Because ordinances that contain these terms already have criteria that specify uninhabitable conditions—e.g., building code violations, public nuisances, and other public health, safety, and welfare concerns—municipalities must interpret the use of deterioration and dilapidation as something less than those extremes. Are aesthetic concerns, such as peeling paint, graffiti, sagging porches, or broken windows, sufficient to determine the existence of deterioration or dilapidation? If so, how much peeling paint would be necessary to warrant municipal intervention? These are difficult questions that raise legal concerns because a property owner may not have sufficient notice that his or her property is at risk. Some legislators have attempted to avoid the vagueness problem by adopting very precise criteria, such as pinning down a specific building age—e.g., forty years or older. However, this type of designation may sweep in entire neighborhoods of otherwise well-kept properties just so a municipality can undertake a large-scale redevelopment project. Using age as a criterion for blight is clearly an attractive proposition because its application is straightforward, but these bright-line designations are arbitrary and no more workable than broader distinctions like “deteriorated” and “dilapidated.”

When a municipality uses blight as a metric to gauge the validity of an eminent domain action, any definition is inevitably a double-edged sword, particularly for historic buildings. A very broad definition that allows municipalities to exercise the power to acquire deteriorated buildings for rehabilitation purposes will also allow municipalities to undertake large-scale urban renewal projects that result in wholesale “slum” clearance. Along the same lines, a narrow definition may prohibit destructive urban renewal practices but also create hurdles to legitimate rehabilitation efforts. Furthermore, the broader the blight definition, the greater likelihood that the ordinance will be unconstitutionally vague, and the more narrow the definition, the greater the likelihood that the ordinance will be arbitrary. In either circumstance, property owners may not have sufficient notice as to what constitutes a blighted condition, and the municipality may exercise its authority selectively or in an arbitrary and capricious manner.


262. See generally, Benjamin Lingle, Post-Kelo Eminent Domain Reform: A Double-Edged Sword for Historic Preservation, 63 FLA. L. REV. 985, 998–1009 (2011) (discussing how narrowed blight definitions may protect historic buildings from demolition for large-scale redevelopment projects but will also bar the use of eminent domain for rehabilitation of historic structures).
Ohio’s revised blight definition, which has been adopted word-for-word in Cincinnati, was upheld in state court, based on Norwood, but is nonetheless overly broad. For the purposes of addressing vacant and abandoned historic buildings, the ordinance is too permissive. The city may acquire properties that are tax delinquent or already violating a building code—sweeping in large numbers of vacant and abandoned buildings—and may target properties that satisfy both the “age” and “vacant and abandoned” requirements under subsection two. Even properties that are not yet of a certain age may still be swept in under the broad definitions of “deteriorated” or “dilapidated.” The risk here is that the city may abuse this power to aggregate large parcels of land to undertake urban renewal projects—squarely contravening the goal of saving and rehabilitating individual buildings. Cincinnati should seek a more focused set of definitions that will help to prevent this type of abuse, while still allowing the flexibility for remedying the vacant and abandoned building problem.

One other problem with exercising eminent domain for “blight removal” is that, historically, this power has been used to target and remove pockets of poverty. Blight removal was the hallmark of the 1950s–1970s urban renewal program and a tactic that, although no longer unequivocally accepted, is still frequently employed. In fact, New London’s comprehensive plan in Kelo was so controversial because it targeted middle-class properties. This apprehension about municipalities interfering with middle-class property rights clearly reveals a longstanding acceptance that condemnation is a form of blight removal that should target exclusively low-income neighborhoods. This discriminatory application of the eminent domain power is not only bad public policy, but it can potentially trigger equal protection challenges under the Fourteenth Amendment. However, unless an injured party raises these constitutional concerns, a court will generally defer to a municipality’s determination that

263. A building in an historic district may be violating a building code if the owner failed to obtain a certificate of appropriateness for an exterior alteration, a condition that violates aesthetic standards.


265. Id. at 854.

266. See Ilya Somin, The Judicial Reaction to Kelo, 4 ALB. GOV’T L. REV. 1, 5 (2011) (emphasizing that Kelo was so controversial because the city was acquiring properties that were not blighted or in poor condition).

its goals are legitimate and that the project furthers those goals.\textsuperscript{268} The “heightened scrutiny” that the \textit{Norwood} court demanded has yet to be tested, and because of the courts’ lack of expertise in municipal land use decisions, this heightened scrutiny may not have the practical effect of invalidating meritless eminent domain goals. Thus, the burden lies with the municipality to safeguard against abuse.

To that end, a municipality must look beyond the existence of the specified condition, examine the impact of that condition on the public welfare, and determine whether condemnation of that property will actually serve a public purpose. This may seem obvious, as embedded within any definition of blight is the idea that it impacts the greater public and that its removal will benefit the public, but the actual impacts versus the perceived impacts are not always properly assessed. A low-income neighborhood may be comprised of owner-occupied dwellings and small businesses but still foster the public’s perception that the neighborhood is negatively impacting the public welfare. Seizure of these buildings for either demolition or rehabilitation will serve no actual public purpose but, rather, will likely replace the low-income occupants with more prosperous ones. Conversely, a neighborhood with numerous vacant and abandoned buildings that otherwise appear well-maintained may actually be a threat to the public welfare despite its tidy outward appearance, and municipal intervention may serve a public purpose of placing these buildings back into productive use. Cincinnati should incorporate into its ordinance a set of procedures by which the city will determine that the blighted properties are actually impacting the surrounding community and that low-income properties are not being targeted merely because they are that—low income.

Ohio has directly authorized municipalities to acquire blighted properties for rehabilitation and resale through eminent domain.\textsuperscript{269} Large economic development projects of the kind in \textit{Kelo} and \textit{Berman} typically involve demolition of existing buildings. Thus, property owners are compensated for the value of their property and forced out of the neighborhood. Even when new housing or businesses are constructed, the displaced residents or business owners are not generally offered the opportunity to exchange their existing building for one of the newly constructed buildings. This type of project results in both the loss of a

\textsuperscript{268} See, e.g., \textit{Kelo}, 545 U.S. at 480 (“Without exception, our cases have defined that concept broadly, reflecting our longstanding policy of deference to legislative judgments in this field.”).

\textsuperscript{269} \textit{OHIO REV. CODE ANN.}, § 719.012 (2011).
community’s unique physical character or heritage and the displacement of residents. Any individual with a personal attachment to his or her specific property loses out, even when the compensation is “just.” Seemingly these types of devastating projects should be scrutinized more rigidly by the courts, rather than granting the type of deference that a court gives a municipality’s police power. When a municipality acquires a property for rehabilitation, the community does not lose the building. This type of acquisition preserves the community character and does not necessarily result in the displacement of residents. A responsible owner—i.e., one that has not let the property deteriorate in bad faith—will have the opportunity to reclaim the property if he or she has a personal attachment to remaining in the community. But more importantly, the community fabric itself remains intact, even if a new owner purchases the rehabilitated property. The following section recommends an eminent domain ordinance that is narrowly tailored toward rehabilitation and limits the ability of the city to target low-income neighborhoods and displace residents.

2. Recommendations

Eminent domain should be exercised when the vacant building registry and nuisance abatement programs fail. Thus, the power serves as a catchall for any properties that cannot be effectively rehabilitated and placed back into productive use after going through the registration and abatement processes. This will typically occur in situations where the property owners are either absentee or tax delinquent, or both. This may also occur when a property owner consistently fails to pay fees or comply with abatement orders. The ordinance should specifically enumerate the circumstances under which the city may exercise this power, and the ordinance should expressly state that eminent domain for demolition of blighted properties is

270. In Lingle v. Chevron, U.S.A. Inc., the Supreme Court held that merely determining whether or not a municipality had a legitimate government interest in enacting a specific regulation, the type of rational basis review used to assess the scope of a city’s police power, was an inappropriate test for determining whether or not a taking had occurred. 544 U.S. 528, 541–44 (2005) (overturning Agins v. City of Tiburon, 447 U.S. 255 (1980), for employing a reasonableness standard akin to that used in assessing the validity of the police power). Here, the concern is that owners may be deprived of property rights without just compensation. Eminent domain actions, on the other hand, are inherent sovereign powers, and as long as just compensation is awarded, no constitutional problems arise. Thus, the courts find no need for heightened scrutiny in reviewing these plans. However, this should not prevent the courts from more heavily scrutinizing cities’ plans to ensure that these projects are really in the best interest of the public—a process that should be mandated under the “public use” clause.
not a sufficient action and that it should not be used for large-scale neighborhood clearance.\textsuperscript{271}

There should be three circumstances under which the city may acquire a vacant or abandoned building: (1) when an absentee owner is speculatively holding onto one or more properties across the city and, therefore, not marketing, maintaining, or rehabilitating those properties; (2) when an owner is consistently delinquent in paying taxes and fees; and (3) when the owner has failed to comply with nuisance abatement orders. Following any of these three circumstances, the city will have the power to acquire the properties and enter them into a land bank for resale to responsible parties. Because these three circumstances will occur after the property has already passed through the VBML and nuisance abatement programs, there is no need to separately define conditions that constitute “blight.” The city will have already determined that these properties pose a threat to the community and that intervention and condemnation will rectify a public harm and, in turn, serve a public purpose.

As the above conditions apply only to buildings already vacant or abandoned, the city may be able to exercise eminent domain more broadly for otherwise blighted properties. The city should be able to intervene while these blighted buildings are still occupied in order to reduce the likelihood that the buildings will become neglected and then vacated or abandoned. Here, the city ordinance should be drafted more narrowly than the state statute. To that end, terms like “age” and “obsolescence” should be removed for their inherent arbitrariness and the fact that these conditions do not necessarily present a public harm. Plus, the city should craft vague terms more specifically—e.g., define what “deteriorated” means—and link those terms to the harms that they cause. For example, the ordinance may specify that a property that is “deteriorated” has structural defects that, if left unabated, will render the property uninhabitable within a specific time period. The condition of these structural defects should also be outlined in the ordinance and should be as technical and objective as possible to avoid abuse. For example, the ordinance may specify that a structural defect exists if a roof has lost a certain percentage of its shingles and the underlying decking and joists have rotted. Again, the city should attempt abatement through the public nuisance ordinance prior to undertaking condemnation and take the property through eminent domain only when nuisance actions fail.

\textsuperscript{271}. This, of course, does not preclude the city from potentially demolishing buildings for road construction and other public uses that are inherent in the city’s exercise of eminent domain power.
Furthermore, the city should not be able to target entire “blighted areas,” as this allows too much discretion for the city to displace low-income or minority populations from neighborhoods. Rather, the city should require that each individual property targeted for condemnation is actually blighted under the city’s ordinance and that acquiring that property is necessary for achieving the public benefit.

CONCLUSION

Vacant and abandoned buildings have long been a hurdle to economic development in the nation’s rust belt, and municipalities have failed to effectuate sound policy to remediate the growing problem. Lax building codes and passive enforcement of those codes at the municipal level have resulted in large-scale demolition by neglect, and aggressive demolition programs at the local, state, and national levels have left seas of undeveloped, overgrown urban prairies in the historic hearts of these once-thriving industrial metropolises. Municipalities must take a proactive approach in addressing vacant and abandoned buildings and intervene in rehabilitating these properties and placing them back into productive use before they become too deteriorated to salvage. Vacant building registries, nuisance abatement programs, eminent domain powers, land banks, and property receivers—if tailored toward preservation and rehabilitation—can have a positive impact on these historic cities and generate new economic life in distressed neighborhoods.