
ARTICLES

HOPE BABCOCK*

The National Environmental Policy Act in the Urban Environment: Oxymoron or a Useful Tool to Combat the Destruction of Neighborhoods and Urban Sprawl?

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To some, applying the National Environmental Policy Act (NEPA) to decisions affecting land use in an urban or built environment is an oxymoron.¹ Cities have historically not been

* Professor of Law, Georgetown University Law Center. An abbreviated version of this Article was presented at an American Law Institute-American Bar Association and Environmental Law Institute Course of Study held in Washington, D.C. on December 12–14, 2007.

¹ In fact, a student in my environmental law class many years ago questioned the application of NEPA to what he termed was a destroyed environment—there simply was no environment in cities worth being concerned about. While I brushed the comment off and thought no more about it at the time, the statement has stayed with me, prompting a closer look at the question and eventually this Article. *But*

seen “as natural entities but as foreign impositions upon the native landscape,”² places where the physical environment is already largely destroyed or reduced to insignificant remnants. Moreover, detecting the required federal presence to trigger NEPA may initially seem difficult when decisions affecting urban resources appear to be principally made by local or state agencies.

My experience at the Institute for Public Representation (IPR) at the Georgetown University Law Center tells me otherwise.³ At the IPR, we have learned that many kinds of environments, including the built environment, are worthy of protection because of their importance on a local, if not regional or national, level. We also repeatedly encounter federal agencies that permit or fund activities that threaten these environments. In some cases, such as national parks or monuments, these agencies actually own or manage the threatened resource. Accordingly, the IPR has used NEPA as one of its basic tools to protect the urban environment.

This is not to say that the fit between NEPA and the urban environment is necessarily perfect. Quite the contrary, an urban environment can both test the effectiveness of NEPA and suggest ways in which the Act might be improved. For example, relevant case law demonstrates that finding a sufficiently large federal handle to warrant the application of NEPA to urban land

see Charles P. Lord, Eric Strauss & Aaron Toffler, *Natural Cities: Urban Ecology and the Restoration of Urban Ecosystems*, 21 VA. ENVTL. L.J. 317, 330 (2003) (“Urban areas, although not typically thought of as important to environmental protection, may be the most important environmental challenge of the next century.”).

² *Id.* at 319.

³ I direct the environmental project at the Institute for Public Representation, a public interest clinic at the Georgetown University Law Center. We have relied on NEPA repeatedly, and will continue to rely on it in the future, to protect the residents of the District of Columbia from ill-conceived and ill-considered threats to their environment. We have used NEPA to delay, change, mitigate, and sometimes ultimately derail permanently environmentally destructive projects. Examples include construction of new bridges and highways financed by federal money; transfers of federal property to the District of Columbia government to enable future private development; development activities in, or adjacent to, national parks that will adversely affect park resources; and the federally authorized construction of unwanted projects that will increase local traffic and noise, depress property values, and sometimes cut off access to natural resources previously enjoyed by these communities.

use decisions can be challenging.⁴ Despite this federal-presence challenge and other flaws,⁵ NEPA adds unique analytical tools to the web of federal laws protecting the urban landscape. These tools are particularly suited to addressing two problems that are plaguing metropolitan areas today: loss of neighborhood viability leading to urban blight and white flight, and the phenomenon of urban sprawl.

The first tool is NEPA's mandate that federal agencies consider their proposed actions' impact on social and cultural resources.⁶ This requirement can be used to help assess the extent to which federal projects may lessen the diversity and sustainability of urban neighborhoods by adversely affecting

⁴ If the federal component of a proposed action involving state or local government authorities is too small, then NEPA's environmental impact statement (EIS) process will not be triggered. *See, e.g.,* *Landmark West! v. U.S. Postal Serv.*, 840 F. Supp. 994, 1008–09 (S.D.N.Y. 1993) (the inclusion of a post office in a mixed use commercial development was not sufficient to federalize the project for purposes of NEPA and its actions enabling the development were “merely incidental”). Nor will the possibility of future federal funding, even when a project has been designed in accordance with the advice of a federal agency to hold open the possibility of federal funding, create a duty to prepare an EIS. *Vill. of Lincolnshire v. Ill. Dep't of Transp.*, No. 01 C 5974, 2002 WL 276127, at *5, *7 (N.D. Ill. Feb. 27, 2002); *Citizens Alert Regarding the Env't v. Env'tl. Prot. Agency*, 102 F. App'x 167, (D.C. Cir. 2004) (Environmental Protection Agency's (EPA) participation in a state-administered revolving-fund program largely funded by agency grants was insufficient to enjoin construction of a sewer pipeline until EPA completed its NEPA review and was also insufficient to federalize the project since EPA lacked substantial control over the state grant); *Save Barton Creek Ass'n v. Fed. Highway Admin.*, 950 F.2d 1129, 1138 (5th Cir. 1992) (mere fact that highway project was *eligible* for federal funding is not sufficient to federalize project for purposes of NEPA). *But see* *Md. Conservation Council, Inc. v. Gilchrist*, 808 F.2d 1039 (4th Cir. 1986) (finding the prospect of future federal funding of a highway project an element of federalizing the entire project.).

⁵ Several commentators have been highly critical of NEPA. *See, e.g.,* Sheila R. Foster, *The City as an Ecological Space: Social Capital and Urban Land Use*, 82 NOTRE DAME L. REV. 527, 550 (2006) (criticizing NEPA's “physical determinism”); Bradley C. Karkkainen, *Whither NEPA?*, 12 N.Y.U. ENVTL. L.J. 333, 363 (2004) (finding NEPA “a somewhat awkward and inefficient vehicle” for “compelling the production and disclosure of information on expected environmental outcomes”); Matthew J. Lindstrom, *Procedures Without Purpose: the Withering Away of the National Environmental Policy Act's Substantive Law*, 20 J. LAND RESOURCES & ENVTL. L. 245, 262–63 (2000) (complaining that the “extremely narrow NEPA jurisprudence” leads to the conclusion that “NEPA is far past its best days, and has faded to a mere shadow of its former self.”) *But see* Lindstrom, *supra*, at 267 (concluding that “[d]espite all of its problems, NEPA remains a powerful statute”).

⁶ *See* National Environmental Policy Act of 1969, § 101, 42 U.S.C. § 4331 (2006).

their “social capital,”⁷ that complex web of interlocking and mutually supportive networks of social and economic relationships that binds communities together.

The second tool compels proponents of federally authorized or funded projects to consider their proposed actions’ indirect and cumulative impacts. This requirement offers a mechanism for addressing problems raised by urban sprawl.⁸ The effectiveness of both of these tools may be limited when an urban land use change appears too small to trigger NEPA’s applicability or seemingly will have only a minor impact on the physical environment. Overcoming these challenges is the focus of this Article.

In responding to these challenges, this Article first takes a brief look at cities, their positive and negative features, and the importance of vibrant, healthy neighborhoods to good quality urban life. Part I also discusses the phenomenon of urban sprawl and its environmental impacts. Part II examines how government decisions that negatively affect seemingly isolated, small uses of urban land, such as a corner bodega,⁹ can ripple out into the greater metropolitan area and lead to economic blight, white flight, and urban sprawl. In addition, Part II introduces the concept of social capital and explains why it is a central component of healthy neighborhoods, especially for those that are less financially secure.

Part III turns to NEPA and looks at the statute’s use in the urban environment. This part identifies particular features of NEPA that give city residents, particularly those who live in less financially stable areas, unique tools to resist non-desirable changes to their neighborhoods. The last part of the Article shows how the principles of conservation biology and social capital can be combined to translate principally socio-economic

⁷ Foster, *supra* note 5, at 529. This Article draws heavily on Foster’s development and application of the concept of social capital to New York City’s decision to destroy hundreds of community gardens. *See id.* at 534–46.

⁸ *See, e.g.*, Lord et al., *supra* note 1, at 322–23, 353–54 (discussing environmental problems caused by urban sprawl); Foster, *supra* note 5, at 538–40 (discussing indirect and cumulative impacts).

⁹ A bodega is a small neighborhood convenience store commonly found in Spanish-speaking neighborhoods in cities on the eastern seaboard, especially in New York City. The word came from the Spanish word for “grocery store”—*la bodega*. THE AMERICAN HERITAGE COLLEGE DICTIONARY 155 (3d ed. 1993).

impacts from isolated land use changes into large-scale physical impacts. The final part then demonstrates how these physical consequences can be sufficiently magnified to warrant the preparation of an environmental impact statement (EIS). In case this rationale should fail, the Article explores informal means of communicating with agencies during the preparation of an environmental assessment (EA) that offer communities another way of influencing neighborhood land use decisions.

I

CITIES: THE GOOD, THE BAD, AND THE UGLY

Over three-quarters of the population of the United States live in cities.¹⁰ Despite the migration of urban dwellers to the suburbs and exurbs, cities have continued to grow “both as a function of density within the urban core and as a function of urban sprawl.”¹¹ Some of the most pressing environmental problems are, and historically always have been, found in cities. According to Senator Henry Jackson, one of NEPA’s principal sponsors:

The inadequacy of present knowledge, policies, and institutions is reflected in our nation’s history, in our national attitudes, and in our contemporary life We see increasing evidence of this inadequacy . . . [in] haphazard urban and suburban growth; crowding, congestion, and conditions within our central cities which result in civil unrest and detract from man’s social and psychological well-being.¹²

Cities “represent the excesses of human activity, which encroach upon and alter our way of life in profound and often indelible ways.”¹³ High concentrations of people and polluting

¹⁰ U.N. POPULATION DIV., WORLD URBANIZATION PROSPECTS: THE 2007 REVISION POPULATION DATABASE, *United States of America Demographic Profile 1950–2050*, <http://esa.un.org/unup/> (last visited Mar. 7, 2008).

¹¹ Lord et al., *supra* note 1, at 322. Lord, Strauss, and Toffler advocate the application of models developed and used to preserve national parks and wildlife refuges to solve problems in the urban environment and to “manage dwindling resources within the city landscape” more effectively. *Id.* at 320.

¹² Heather E. Ross, *Using NEPA in the Fight for Environmental Justice*, Student Article, 18 WM. & MARY J. ENVTL. L. 353, 359 (1994) (quoting 115 CONG. REC. S29,067 (daily ed. Oct. 8, 1969) (statement of Sen. Jackson)). Senator Jackson’s concerns extended to “an increasingly ugly landscape cluttered with billboards, powerlines, and junkyards.” *Id.*

¹³ Foster, *supra* note 5, at 527.

industries, uncontrolled production and disposal of waste, and impervious, heat-trapping surfaces have made cities major sources of air and water pollution, soil contamination, natural resource destruction, and loss of biodiversity.¹⁴ Polluting industries, utilities, and cars in cities not only directly and adversely affect city residents and the immediate urban environment but also cause serious environmental problems well beyond city borders.¹⁵ Cities historically have also been places of social injustice, poverty, and public health problems, and continue to be so to this day.¹⁶

Yet, cities are certainly worth preserving. They “are places of human development, both spatially and culturally. They represent the ‘ultimate handiwork’ of our imagination, generating most of our art, culture, commerce and technology.”¹⁷ Cities act as “centres of political decision-making, technological invention, scientific knowledge accumulation and social activism,” and as such, they “have also given rise to innovative ways of engaging with the environment.”¹⁸ Furthermore, cities contain important cultural resources such as monuments,

¹⁴ See Lord et al., *supra* note 1, at 323 (“The tremendous impact of humans on the biosphere is concentrated in urban areas where deforestation, soil erosion, pollution, and exhaustion of natural resources are the most intense.”). The EPA, through its Nationwide Urban Runoff Program studies, has found that urban runoff contributes substantially to “the impairment of aquatic ecology, chemical makeup, and physical characteristics of local waters.” *Id.* at 363. According to the 1998 National Water Quality Inventory Report, “urban runoff and municipal point sources were responsible for nearly 25% of the impaired river miles and lake acres in the United States” and largely responsible for 44% of impaired estuarine waters. *Id.* at 363–64.

¹⁵ See Nancy Kubasek & Alex Frondorf, *A Modest Proposal for Ameliorating Urban Sprawl*, 32 REAL EST. L.J. 246, pt. II (2003) (explaining how “infrastructure, public transportation, farm and forest land, water and air quality, and public services” are negatively affected by urban sprawl).

¹⁶ Lord et al., *supra* note 1, at 323.

¹⁷ Foster, *supra* note 5, at 527. Foster notes that modern land use regulation grew “directly out of efforts to control particular excesses and impacts from city life and urban growth.” *Id.* at 527–28. Foster believes that land use regulation has failed to account for impacts to “social capital.” *Id.* at 529. She defines social capital as “the ways in which individuals and communities create trust, maintain social networks, and establish norms that enable participants to act cooperatively toward the pursuit of shared goals.” *Id.*

¹⁸ European Soc’y for Env’tl. History, *The Place of the City in Environmental History*, 5th International Roundtable on Urban Environmental History, Call for Papers: Berlin 3.7.–6.7.2008, <http://eseh.org/urbanrtberlin> (last visited Apr. 13, 2008).

buildings of historical importance, museums, theaters, and vibrant, distinctive, often irreplaceable neighborhoods.¹⁹ Cities frequently contain natural resources and recreational amenities like rivers, parks, and trails. Properly protected, this urban natural resource base can serve as a partial antidote to the adverse environmental effects of urban sprawl. For example, city parks provide stopover habitat for migratory birds²⁰ and shelter for displaced small mammals like foxes, raccoons, and coyotes, partially offsetting the loss of open space habitat as cities push outward.²¹ Indeed, if city life could be made more livable, perhaps the pressure to exit cities and the attendant ills of urban sprawl might lessen.

Cities, at their heart, are composed of neighborhoods and small communities that come together “to manage themselves via networks of interested individuals”²² The quality of these neighborhoods “inevitably shapes the quality of city life.”²³ When people or certain land uses within neighborhoods are displaced or unwanted land uses are imposed, social and cultural

¹⁹ See J. Peter Byrne & Michael Diamond, *Affordable Housing, Land Tenure, and Urban Policy: The Matrix Revealed*, 34 *FORDHAM URB. L.J.* 527, 572–73 (2007) (commenting that people “are drawn to neighborhoods like Brownsville or Adams Morgan due to a sense of greater cultural possibility,” and noting that “[c]ultural vitality is a public good more likely to be created in economically diverse circumstances.”).

²⁰ See, e.g., Erik Kiviat & Kristi MacDonald, *Biodiversity Patterns and Conservation in the Hackensack Meadowlands, New Jersey*, *URBAN HABITATS*, Dec. 2004, http://www.urbanhabitats.org/v02n01/biodiversitypatterns_full.html (discussing importance of urban wetlands for wintering, breeding, and migrating waterfowl and other birds); see also Jeffrey D. Brawn & Douglas F. Stotz, *The Importance of the Chicago Region and the “Chicago Wilderness” Initiative for Avian Conservation*, in *AVIAN ECOLOGY AND CONSERVATION IN AN URBANIZING WORLD* 509 (John M. Marzluff, Reed Bowman & Roarke Donnelly, eds. 2001); U.S. Fish & Wildlife Serv., *Urban Conservation Treaty for Migratory Birds: Making Cities Better for Birds* (2003), <http://www.fws.gov/birds/Urban%20Treaty%20Fact%20Sheet.pdf> (government fact sheet about importance of urban habitat to migratory birds).

²¹ See, e.g., Env'tl. Literacy Council, *Urban Ecology*, <http://www.enviroliteracy.org/article.php/603.html> (discussing the different types of wildlife that can be found in urban areas and noting that an increase in urban wildlife can be an “indicator of environmental improvement” as well as a reflection of the “displacement” of wildlife from their natural habitats) (last visited Mar. 24, 2008).

²² Foster, *supra* note 5, at 530. Foster calls these networks “social capital,” a term she equates with “the civic fauna of urbanism” that makes it possible to govern cities. *Id.* at 531.

²³ *Id.*

ties can be broken, never to be regenerated.²⁴ Since urban environments consist of a complex array of “interactions and feedback” among “social, biological and physical processes,” changes to one neighborhood can create a cascade of negative effects throughout the wider urban environment.²⁵ These ripples may extend into the surrounding region as displaced people and land uses relocate and reestablish themselves elsewhere.

Cities are not only internally interconnected, but also inextricably linked with their surrounding environment. Nothing illustrates this connection as well as urban sprawl, a modern day urban diaspora in which the environmental and social problems of cities have fueled the exodus of residents from cities to their peripheries.²⁶ This phenomenon has expanded “the urban footprint” significantly and tied cities firmly to their surrounding landscape.²⁷ As cities spread outward, “nearby open space, forests, prime farmlands, scenic views, wetlands, and wildlife habitat”²⁸ are destroyed or seriously fragmented, threatening the interdependent goals of biological diversity and sustainability.²⁹

²⁴ See *id.* at 531–32; see also Byrne & Diamond, *supra* note 19, at 569 (noting that there have been some “legendary disasters” associated with urban renewal projects designed to eliminate blight, and that these projects “displaced many poor people from functioning communities that helped sustain them”). As an example of this, Foster cites the concentration of hazardous land uses in certain communities, which not only threatens the communities’ physical health and aesthetics, but can also “alter the ways in which people live, work, and play . . . by entrenching historical patterns of discriminatory land use and thereby fragmenting urban space by race and class.” Foster, *supra* note 5, at 532.

²⁵ *Id.*

²⁶ See Shelby D. Green, *The Search for a National Land Use Policy: For the Cities’ Sake*, 26 FORDHAM URB. L.J. 69, 73 (1998) (noting that between 1960 and 1990, urban population had declined to 31.3%, while suburban population had grown to 46.2%); see also *id.* at 74 (“[S]ince 1950, eighteen of the nation’s twenty-five largest cities suffered a net loss in population,” while the population in independent suburbs grew by over sixty million people).

²⁷ Edward H. Zeigler, *American Cities and Sustainable Development in the Age of Global Terrorism: Some Thoughts on Fortress America and the Potential for Defensive Dispersal II*, 30 WM. & MARY ENVTL. L. & POL’Y REV. 95, 111–12 (2005). Lord, Strauss, and Toffler report that between 1960 and 1990, this footprint has “doubled to nearly 20% of the nation’s land area.” Lord et al., *supra* note 1, at 322. They also note that in greater Boston, the population grew 24.3% between 1950 and 1990, while “the urbanized area” grew 158.3%. *Id.* at 330; see also Kubasek & Frondorf, *supra* note 15, at pt. II (noting that although greater Cleveland’s population decreased by 11%, its land use increased by 33%).

²⁸ Zeigler, *supra* note 27, at 111–12; see Kubasek & Frondorf, *supra* note 15, at pt. II (discussing “the negative effects of urban sprawl” and estimating the rate of

The dispersal of urban populations in ever-outward radiating circles has fostered a “decentralized, automobile-dependent pattern of land development.”³⁰ The attendant environmental and social costs of this dispersal include traffic congestion on roads leading into and out of the urban core and in cities themselves.³¹ Urban sprawl also contributes to the deterioration of water quality in these newly colonized areas by changing their natural drainage systems, destroying wetlands that act as sediment and pollution traps, and increasing sedimentation and runoff through the construction of parking lots, buildings, roads, and other impervious surfaces.³²

“Urban sprawl has also contributed to the deteriorating economic viability and social livability of the core areas of most major cities and towns.”³³ When businesses close down or move out of the center city in these areas, they leave behind high rates of unemployment³⁴ and abandoned, often contaminated land.³⁵

farmland destruction at 1.2 million acres per year, the loss of undeveloped land and forests at 0.8 million acres, and the loss of wetlands at 100,000 acres per year).

²⁹ Zeigler, *supra* note 27, at 112.

³⁰ *Id.*

³¹ See *id.* at 112–16 (discussing the economic and social costs of America’s dependence on automobiles); see also Kubasek & Frondorf, *supra* note 15, at pt. II (saying that the number of vehicle-miles traveled per year doubled between the 1970s and the 1990s).

³² See Kubasek & Frondorf, *supra* note 15, at pt. II (cataloging the problems of urban sprawl, which include causing costly, unnecessary, and redundant infrastructure development beyond existing centers, creating higher dependence on private cars, destroying farmland and wetlands, causing habitat fragmentation, decreasing water quality due to greater urban runoff, and increasing the probability of flooding).

³³ Zeigler, *supra* note 27, at 114.

³⁴ Green, *supra* note 26, at 74 (“[M]anufacturing employment significantly declined within twelve of the thirty largest cities in the nation,” with the greatest drop in employment occurring in “the older and more industrialized centers of the northeast and north central regions,” while employment in the suburban areas increased in twenty-nine of these cities); see also Robert W. Collin & Robin Morris Collin, *The Role of Communities in Environmental Decisions: Communities Speaking for Themselves*, 13 J. ENVTL. L. & LITIG. 37, 41 (1998) (observing that black urban dwellers “define environment and environmental concern much more holistically to include quality of life indicators wherever they live, work, and play”); Kubasek & Frondorf, *supra* note 15, at pt. II (noting that affluent families move to the suburbs, “while the poor are left behind in the city with a declining and inadequate tax base”).

When people and businesses have the option of moving away, the incentive to clean up and maintain abandoned properties decreases.³⁶ Income from property taxes on those lands plunges along with general revenues, as those who can afford to leave, do.³⁷

In the wake of this exodus, “the region’s poor and disadvantaged” are left behind.³⁸ These abandoned populations lack transportation to get to jobs in the malls and industrial parks that now ring the cities and increasingly find themselves “unemployed and unable to pay taxes.”³⁹ Yet, the need to provide and maintain public services for the remaining population continues regardless of the dwindling revenue, thereby putting a severe strain on metropolitan coffers.⁴⁰

As a result of urban sprawl, cities have become progressively poorer and less white.⁴¹ The number of poor living in cities jumped from twenty-seven percent in 1959 to forty-three percent by 1985.⁴² This trend is especially prevalent in the northeastern and north central United States.⁴³ “[E]xpanding and more affluent suburbs” surround old, declining cities in these regions.⁴⁴ The populations of these cities are “poor and disproportionately black, Hispanic and Asian,” while suburban communities remain

³⁵ Kubasek & Frondorf, *supra* note 15, at pt. II (“[P]remature divestment or abandonment of existing facilities in urban centers leads to . . . abandoned and contaminated sites . . . [and] to environmental decay . . .”).

³⁶ *Id.*

³⁷ *See id.*

³⁸ Green, *supra* note 26, at 77–78.

³⁹ *Id.* The exodus of city residents has led to less residential and commercial development in cities, higher per capita public services costs, and a strained municipal tax base. *Id.* Commuting employees of urban businesses are not taxed because they are nonresidents, setting off another cycle of flight by higher-income households, businesses, and taxpayers who leave to avoid the higher taxes. *Id.*

⁴⁰ *Id.* at 76–77 (“[W]ith an insufficient number of jobs for the urban areas and an insufficient tax base to provide municipal services for urban residents, libraries are underfunded, roads go unrepaired, and housing needs are unmet.”).

⁴¹ *See* Byrne & Diamond, *supra* note 19, at 565 (listing among other reasons for economic segregation: transportation improvements, federal construction interstate highways, exclusionary zoning, and “the availability of land”).

⁴² Green, *supra* note 26, at 74.

⁴³ *Id.*

⁴⁴ *Id.*

mostly white and affluent.⁴⁵ This balkanization within the larger metropolitan area contributes to “collective action problems in the urban commons, preventing the type of ‘togetherness’ essential to ‘community-building’ and collaborations across social and geographic boundaries.”⁴⁶ Given the overlapping nature of urban problems, diminished collaboration makes it even more difficult for cities to effectively respond to the repercussions of sprawl.⁴⁷

II

HOW LAND USE DECISIONS AFFECTING NEIGHBORHOODS ADVERSELY AFFECT THE URBAN ENVIRONMENT AND THE LARGER METROPOLITAN AREA

“[L]and use decisions can have indelible impacts on human communities at different degrees and scales.”⁴⁸ Changes in urban land use “can trigger a chain” of social and economic “disruptions,”⁴⁹ not unlike changes that occur in natural systems in response to some disturbance.⁵⁰ By affecting population density and the spatial relationship between people and the land uses that they depend on, land use decisions can “significantly affect[] the network of social and economic relationships” that

⁴⁵ *Id.* Green notes that urban and suburban populations are becoming “increasingly more balkanized,” which, in turn, is precipitating “the breakdown of communities and the simultaneous emergence of urban problems.” *Id.* at 78.

⁴⁶ Foster, *supra* note 5, at 532; *see also* Byrne & Diamond, *supra* note 19, at 566–67 (“Residential segregation of the poor excludes them from access to crucial, high quality public services,” such as good “public schools, recreational facilities, libraries, clean air, and public safety.” The poor who are excluded from the suburbs are also “excluded from the public goods that a suburb exists to provide.”).

⁴⁷ *See* Byrne & Diamond, *supra* note 19, at 566–67 (noting that the poor “have no voice in the decisions of excluding suburbs,” and that economic separation between the inner city and the suburbs leads suburban residents “to oppose the production of public goods at the state or national level,” to the detriment of low income urban residents); *see also id.* at 568 n.171 (citing JOHN RAWLS, A THEORY OF JUSTICE 60–62 (1971)). Byrne and Diamond note that “under [Rawls’] approach a principal vice of exclusively wealthy jurisdiction is that it captures the public benefits of economic inequality only for the privileged.” *Id.*

⁴⁸ Foster, *supra* note 5, at 534.

⁴⁹ *Id.* at 557.

⁵⁰ *See* Hope M. Babcock, *Administering the Clean Water Act: Do Regulators Have “Bigger Fish to Fry” When It Comes to Addressing the Practice of Chumming on the Chesapeake Bay*, 21 TUL. ENVTL. L.J. 1, 43–46 (2007) (describing how complex systems like estuaries work).

make cities “unique ecosystems.”⁵¹ As a result of these interlocking relationships and dependencies, decisions to alter physical space in a city may not only injure the character and sustainability of a single neighborhood but also radiate adverse effects throughout the city and surrounding areas.⁵²

In the growing field of urban ecology, researchers are developing theories to take account of the “complexity of interactions and feedback mechanisms” among “social, biological, and physical processes” within cities and their surrounding regions.⁵³ Interactions between physical and socioeconomic environments occur in cities at the neighborhood or block level every time a decision is made to change the affected area’s land use or invest (or not) in the area’s infrastructure.⁵⁴

Some land use decisions clearly injure the urban environment. For instance, a decision to site a coal-fired power plant or hazardous waste facility in the urban core will pollute the city to some degree. Other determinations, such as a decision to redevelop a decaying neighborhood, may seem to have only an insignificant environmental impact. Despite appearances, the adverse effects of redeveloping a neighborhood may be just as destructive to the health of its residents because of the “profound impacts on the social (and economic) networks of the communities of which that space is a part.”⁵⁵

⁵¹ Foster, *supra* note 5, at 557.

⁵² See, e.g., WILLIAM CRONON, *NATURE’S METROPOLIS: CHICAGO AND THE GREAT WEST* xiii (1991) (examining the relationship between Chicago and “the vast region lying to its west” in the second half of the nineteenth century).

⁵³ Foster, *supra* note 5, at 539. See generally Lord et al., *supra* note 1 (arguing for conceiving cities as natural functioning ecosystems, such as estuaries or rain forests).

⁵⁴ Foster, *supra* note 5, at 539 (explaining that urban sprawl is an example of the complexity and interactions between various “social and biophysical processes[the] main drivers [of which] are demographics (e.g., increases in the number of households), socioeconomic trends (e.g., housing preferences, industrial restructuring) and biophysical factors (e.g., geomorphological patterns and processes), which are then reinforced by infrastructure investment choices (e.g., development of highway systems) and land and real estate markets”).

⁵⁵ *Id.* at 534; see also *id.* at 532, 534–38 (discussing the effect of the sale for future development of hundreds of community gardens that had sprung up on vacant lots in New York City on the social networks that had developed around those gardens both within each neighborhood that had a garden and between neighborhoods, and the resultant loss of “other social and economic benefits for the surrounding

These networks comprise a neighborhood's "social capital."⁵⁶ Social capital has many critical uses in the urban environment, not the least of which may be "establishing and maintaining social order and organization"⁵⁷ in the minority and poor communities left behind after the urban exodus. Social capital can be an effective "defense[] against the disproportionate siting of noxious land uses," such as trash transfer facilities.⁵⁸ Recognizing the value of social capital in the land use decision-making process is key to preserving the capital itself as well as the concomitant ability of inner city neighborhoods to resist unwanted land uses and physical intrusions.

However, social capital is rarely accounted for in the land use decision-making process, leaving neighborhoods that depend upon it vulnerable to decisions that adversely affect them.⁵⁹ One reason for this omission is that decision makers rarely collect critical baseline information from the affected community about the importance of these networks and residents' dependence on them for maintaining the existing environment. The exclusion of this neighborhood-based information can lead to an inaccurate or distorted view about the impacts and desirability of proposed physical changes to the affected community. This lack of information fuels the misperception that land "located in socially

communities and the city as a whole"). The irony is that these lots, which arose as a result of "white flight" to the suburbs in the 1980s, are now highly desired by developers for new housing for returning suburbanites. *Id.* at 534-35.

⁵⁶ *Id.* at 529. Cf. Byrne & Diamond, *supra* note 19, at 581 (defining social capital as "'the set of resources that inhere in relationships of trust and cooperation between people,'" and noting that where individuals' education and employment opportunities have been limited, this "capacity building must be secured in less formal settings," like their homes, churches, or social associations).

⁵⁷ Foster, *supra* note 5, at 544; see also Byrne & Diamond, *supra* note 19, at 581-82 (noting that the "absence [of social capital] often leaves individuals struggling to stay afloat or dissatisfied").

⁵⁸ Foster, *supra* note 5, at 544 & n.65. Foster references the work of Manuel Pastor, whose study of Los Angeles County land use decisions shows that the neighborhoods most likely to be close to a toxic facility were those "undergoing rapid demographic change." He terms this phenomenon "ethnic churning" because it "weakens the bond between residents in a community," thus diminishing the community's political power and capacity to mobilize. *Id.*

⁵⁹ *Id.* at 546 ("Even when laws force the consideration of various impacts from land use decisions, they do so without much attention to social capital costs or benefits.").

and economically fragile neighborhoods”⁶⁰ is abandoned or blighted and warrants redevelopment. Residents of these neighborhoods may see the same land as integrated into the community and “deeply intertwined with the community’s social fabric[,]”⁶¹ thereby necessitating its preservation.

The networks and mutual dependencies that bind blocks into neighborhoods and neighborhoods into cities are replicated between cities and the land around them. “[T]he physical space of the city and its surrounding region are inextricably connected with one another”; no longer do the “central city and its suburbs exist in atomized universes.”⁶² Thus, decisions in the urban core can affect the surrounding metropolitan area. The reverse is also true.

This web of connectivity is even more apparent when one looks at the urban environment through the lens of conservation biology. The city, like any complex, dynamic, evolving ecosystem, consists of overlapping and connected networks of interlocking dependencies.⁶³ In cities, these are the social and economic ties that bind urban communities together and the city to its surrounding landscape. Thus, “urban ills such as sprawl and the fragmentation of metropolitan space are part and parcel of a regional tapestry of cause and effect.”⁶⁴ The effects of urban

⁶⁰ See *id.* at 540; see also *id.* at 542 (“Recent scholarship and empirical evidence is beginning to illustrate the ‘ecological fallacy’ that equates high levels of poverty with social dysfunction and frayed community ties” and to question the assumption that “poor communities lack adequate social capital and related resources.”).

⁶¹ *Id.* at 538.

⁶² *Id.* at 559.

⁶³ An interesting lesson for urban planners from complexity theory, of which conservation or evolutionary biology is a branch, is that “complex species with many biological connections and dependences . . . are more sensitive to fluctuations that disturb the dynamics of their system,” and thus more prone to extinction. Hope M. Babcock, *Democracy’s Discontent in a Complex World: Can Avalanches, Sandpiles, and Finches Optimize Michael Sandel’s Civic Republican Community?*, 85 GEO. L.J. 2085, 2100 (1997). Indeed, adaptation, a process that “allows complex systems to restructure or modify their interaction patterns to become more successful[,]” is made up of “feedback and feedforward loops made possible by multiple paths of interactions between system components.” *Id.* at 2095–96.

⁶⁴ Foster, *supra* note 5, at 559; see also Lord et al., *supra* note 1, at 385 (“The very architecture of advocacy for urban ecosystems (its focus on a regional environmental system) pulls together community groups across traditional divides and provides the opportunity for community-based coalitions that transcend neighborhood-level parochialism. [U]nderstanding an urban area as an ecological

sprawl—traffic congestion, air pollution, and economic and social dislocations—spill back into the city as the area outside it becomes less dense, more affluent, and more stable.⁶⁵ “[R]ibbon or strip development of commercial and business establishments along major highways” connecting cities to their outer fringes causes the same adverse environmental and socioeconomic impacts as urban residents abandon shopping and business opportunities in the inner city in favor of these new suburban opportunities.⁶⁶

Federal pollution control laws are too narrow to apply to urban land use changes that destroy a neighborhood’s social capital or cause the adverse effects associated with sprawl. NEPA’s unique requirements offer federal decision makers potential tools with which to address these concerns.

III

THE NATIONAL ENVIRONMENTAL POLICY ACT

NEPA is the “basic national charter for the protection of the environment.”⁶⁷ The statute provides:

[I]t is the continuing responsibility of the Federal Government to use all practicable means . . . to . . . fulfill the responsibilities of each generation as trustee of the environment for succeeding generations [and] . . . attain the widest range of beneficial uses of the environment without degradation, risk to health or safety,⁶⁸ or other undesirable and unintended consequences

The Act’s fundamental purpose is to encourage decisions that are more protective of the environment by informing government officials and the general public of the environmental

system provides such coalitions with a unifying theory for managing and restoring the urban area.”).

⁶⁵ Green, *supra* note 26, at 71.

⁶⁶ *Id.* at 71–72 (noting particularly that large public works projects, like federally funded airports and highways, bring “overwhelming and ill-considered secondary development to their surrounding areas”). As these projects are generally located in or next to cities, or serve to connect them, these effects are directly felt by the urban environment. A series of projects can “incrementally contribute[] to . . . larger environmental effects, such as using up the capacity of the sewer system or degrading the traffic flow in the area.” Daniel P. Selmi, *Themes in the Evolution of the State Environmental Policy Acts*, 38 URB. LAW. 949, 969 (2006).

⁶⁷ 40 C.F.R. § 1500.1 (2007).

⁶⁸ 42 U.S.C. § 4331(b) (2006).

consequences of proposed agency actions.⁶⁹ In this way, “NEPA ensures that the agency will not act on incomplete information, only to regret its decision after it is too late to correct.”⁷⁰

NEPA has been an integral part of the urban environment from its enactment. Section 101(a)’s declaration of national environmental policy includes Congress’ express recognition of “the profound influences of . . . high-density urbanization”⁷¹ Further, section 101(b) gives the federal government “continuing responsibility . . . to use all practicable means” to: “assure for all Americans . . . esthetically and culturally pleasing surroundings; . . . preserve important historic, cultural, and natural aspects of our national heritage; . . . [and] achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities”⁷² NEPA also directs the federal government to “maintain, wherever possible, an environment which supports *diversity*”⁷³ and to perform its task under NEPA “*in cooperation with State and local governments.*”⁷⁴

⁶⁹ 40 C.F.R. § 1500.1.

⁷⁰ *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371 (1989) (citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989)). One of the key elements of NEPA is that the agency proponents of a project examine alternatives to it, including the no action alternative. 42 U.S.C. § 4332(2)(C)(iii), (E). Selmi is extremely critical of this requirement to the extent that it promotes reducing a project’s size to mitigate its impacts. Because alternative sites may be owned by individuals with no connection or interest in the proposed project, this injects an element of unfairness into the process because the developer has invested both time and money in the project’s development and is now forced to develop an alternative proposal showing the deficiencies of the original proposal, and because alternatives need not meet all of the project’s objectives to be deemed suitable for consideration. Selmi, *supra* note 66, at 985.

⁷¹ 42 U.S.C. § 4331(a).

⁷² *Id.* § 4331(b).

⁷³ *Id.* (emphasis added); *see also* Ross, *supra* note 12, at 358 (“By encouraging the preservation of important historic and cultural aspects of our national heritage, NEPA effectively prohibits the destruction of ethnic communities.”); Bryan G. Norton, *Applied Philosophy vs. Practical Philosophy: Toward an Environmental Policy Integrated According to Scale*, in ENVIRONMENTAL PHILOSOPHY AND ENVIRONMENTAL ACTIVISM 125, 136 (Don E. Marietta Jr. & Lester Embree eds., 1995), *quoted in* Kubasek & Frondorf, *supra* note 15, at pt. III.B. (“How are applications of universal, monistic, moral principles capable of guiding diverse cultures to an appreciation for, and protection [of] what is special and distinctive about their particular natural history and their particular habitat?”).

⁷⁴ 42 U.S.C. § 4331 (emphasis added).

Some of the earliest NEPA cases arose in an urban environment and helped frame the extent of federal agency responsibility to fulfill the law's mandates.⁷⁵ In each of these cases, the court addressed the application of NEPA to some development proposal that threatened to change in significant ways the quality of existing city life. In *Hanly v. Mitchell (Hanly I)*, involving the adequacy of the General Service Administration's (GSA) assessment of the environmental impacts of a proposed courthouse annex and jail in lower Manhattan, the Second Circuit stated:

[NEPA] contains no exhaustive list of so-called "environmental considerations," but without question its aims extend beyond sewage and garbage and even beyond air and water pollution. The Act must be construed to include protection of the quality of life for city residents. Noise, traffic, overburdened mass transportation systems, crime, congestion and even availability of drugs all affect the urban "environment" and are surely the results of the "profound influences of . . . high-density urbanization [and] industrial expansion."⁷⁶

Hanly v. Kleindienst (Hanly II), evaluating the adequacy of GSA's response to *Hanly I*, set forth the required elements of an environmental assessment.⁷⁷ These elements, now found in the Council on Environmental Quality's (CEQ) regulations,⁷⁸ are

⁷⁵ See, e.g., *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227–28 (1980) (holding that a court's only role in reviewing an agency's compliance with NEPA is "to insure that the agency has considered the environmental consequences" of its action and reversing the lower court for finding that NEPA required agencies to give "determinative weight" to environmental factors when selecting between projects); *First Nat'l Bank of Chi. v. Richardson*, 484 F.2d 1369, 1379–81 (7th Cir. 1973) (finding adequate the General Service Administration's (GSA) evaluation of environmental impacts from construction of a federal parking garage and detention center in an urban environment); *Hanly v. Mitchell (Hanly I)*, 460 F.2d 640, 646 (2d Cir. 1972) (finding inadequate the GSA's examination of the environmental impacts of "squeezing a jail into a narrow area directly across the street from two large apartment houses").

⁷⁶ *Hanly I*, 460 F.2d at 647 (citations omitted).

⁷⁷ *Hanly v. Kleindienst (Hanly II)*, 471 F.2d 823, 828–31 (2d Cir. 1972) (stating that in determining whether an EIS is required, the significance of a proposed action is evaluated by looking at "(1) the extent to which the [proposed] action will cause adverse environmental effects in excess of those created by existing uses" in the affected area and "(2) the absolute quantitative adverse environmental effects of the action itself, including [its] cumulative harm").

⁷⁸ 40 C.F.R. § 1508.25, .27 (2007).

partially based on the recognition that even the smallest environmental impact can accumulate into a significant harm.

Although the existing environment of the area which is the site of a major federal action constitutes one criterion to be considered, it must be recognized that even a slight increase in adverse conditions that form an existing environmental milieu may sometimes threaten harm that is significant. One more factory polluting air and water in an area zoned for industrial use may represent the straw that breaks the back of the environmental camel.⁷⁹

The particular appropriateness of NEPA in the urban environment becomes even clearer when one looks at the built environment the same way modern ecologists view natural environments. Under the tenets of modern ecology, the natural environment is conceived as a complex, dynamic, evolving system with interdependent subsystems and networks of interlocking dependencies and positive feedback loops.⁸⁰ With NEPA's command to consider indirect and cumulative impacts,⁸¹ the Act assures a broad focus on the projected impacts of a

⁷⁹ *Hanly II*, 471 F.2d at 831.

⁸⁰ See Babcock, *supra* note 50, at 43-46 (discussing the evolution from equilibrium ecology to a theory of ecology that sees ecosystems as being constantly in a state of flux). A positive feedback is one in which an original process is modified and reinforced by its consequences. PETER COVENEY & ROGER HIGHFIELD, *FRONTIERS OF COMPLEXITY: THE SEARCH FOR ORDER IN A CHAOTIC WORLD* 427 (1995).

⁸¹ 40 C.F.R. §§ 1500-1518 (Council on Environmental Quality (CEQ) regulations promulgated to implement NEPA). "CEQ's regulations implementing NEPA are binding on all federal agencies, and CEQ's interpretation of NEPA is entitled to substantial deference." *Sugarloaf Citizens Ass'n v. Fed. Energy Regulatory Comm'n*, 959 F.2d 508, 512 n.3 (4th Cir. 1992) (citations omitted). The CEQ regulations require federal agencies to discuss an action's "effects and their significance." 40 C.F.R. § 1502.16(a). "Effects include . . . health, whether direct, indirect or cumulative." *Id.* § 1508.8(b). "Direct effects" are those "caused by the action and occur[ing] at the same time and place." *Id.* § 1508.8(a). "Indirect effects" include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." *Id.* § 1508.8(b). Federal agencies must consider "[t]he degree to which the proposed action affects public health or safety" and "[t]he degree to which possible effects on the human environment are highly uncertain or involve unique or unknown risks." *Id.* § 1508.27(b). Project proponents must also consider "[w]hether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment." *Id.*

proposed activity.⁸² Where environmental impacts in an urban environment might otherwise be viewed as highly localized, NEPA requires a broader focus. Thus, the redevelopment of a single city block must be assessed in terms of how the project's impact radiates throughout the city and into the surrounding region. No other environmental law requires such a comprehensive analysis.⁸³

Importantly, NEPA has become the primary vehicle for addressing the pernicious problems posed by the disparate distribution of environmental costs and benefits, situations that frequently arise in the urban environment.⁸⁴ Senator Jackson

⁸² See Selmi, *supra* note 66, at 968–69 (noting that state environmental impact analyses can affect underlying land use decisions by requiring the disclosure of regional impacts outside the approving jurisdiction and compelling “evaluation of the ‘cumulative effects’ of a series of land use decisions”). Selmi argues that the requirement to consider cumulative impacts, however, does not always address the mismatch between the scope of a project—which in the urban environment can be quite small—and the “much larger environmental setting or problem.” *Id.* at 970; see also Green, *supra* note 26, at 105 (another problem with NEPA is that impact statements look at the “effects of a single project at a single point,” but do not address development patterns). So to the extent that there is a need to look broadly and holistically at patterns of development, let alone shift those patterns into a more benign path, NEPA is not the vehicle for doing that.

⁸³ See Lord et al., *supra* note 1, at 337 (“[T]here is currently no mechanism whereby cumulative impacts of polluting industries are taken into account when permitting decisions are made. Therefore, a large number of relatively small polluting industries may be located in one particular neighborhood.”). *But see* Kubasek & Frondorf, *supra* note 15, at pt. III.A. (arguing that “a key error of policy makers is to consistently and almost exclusively view urban sprawl” on a broad, regional level, creating “diseconomies of scale,” preventing communities from forming coherent communities, and generating unnecessary complexity and conflict).

⁸⁴ See COUNCIL ON ENVTL. QUALITY, ENVIRONMENTAL JUSTICE: GUIDANCE UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 8–9 (1997) (noting that while “[t]here is not a standard formula for how environmental justice issues should be identified or addressed” in impact statements, there are certain things that should be covered, such as historical patterns of exposure to environmental hazards and multiple or cumulative effects of these impacts, even if they are beyond the control of the agency proposing the action); see also Stephen M. Johnson, *NEPA and SEPA's in the Quest for Environmental Justice*, 30 LOY. L.A. L. REV. 565, 571 (1997) (noting that NEPA's requirement that federal agencies consider certain health and socioeconomic impacts of their proposed actions on minority and low-income communities can help identify whether agency actions will have a disparate impact on those communities). These duties were amplified by Executive Order 12,898. Exec. Order 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629, 7629–30 (Feb. 11, 1994).

expressed his concern about “the wretched conditions of urban and rural slums” and noted that “[w]hat is needed . . . is a systematic and verifiable method for periodically assessing the state of the environment and the degree and effect of man’s stress upon it, as well as the effect of the environment and the environmental change on man.”⁸⁵ To the extent that unwanted changes to urban neighborhoods are more likely to occur in those considered blighted and economically unviable and to the extent that those neighborhoods are more likely to be poor and black,⁸⁶ only NEPA may offer a way to identify, assess, and mitigate the disparate impacts on the residents of those communities from proposed actions.⁸⁷

A critical component of the NEPA process is public participation.⁸⁸ NEPA’s public participation requirements can empower otherwise disenfranchised communities to influence the government’s decision-making process.⁸⁹ Community leaders can use the information gathered as a result of the NEPA process to organize their communities to oppose and delay

⁸⁵ Ross, *supra* note 12, at 360 (quoting 115 CONG. REC. S29,070–71 (daily ed. Oct. 8, 1969) (statement of Sen. Jackson)).

⁸⁶ See Barry E. Hill, *Chester, Pennsylvania—Was It a Classic Example of Environmental Justice?*, 23 VT. L. REV. 479, 481 (1999) (“Throughout this country, bi-racial community groups . . . have complained incessantly to the U.S. Environmental Protection Agency (EPA) that the residents of various minority and/or low-income communities have suffered the consequences of environmental injustice.”); Johnson, *supra* note 84, at 565 (“[H]azardous waste landfills, treatment facilities, and industries that emit the greatest amount of toxic chemicals are located predominantly in minority or low-income communities.”).

⁸⁷ See Johnson, *supra* note 84, at 579 (“The clearest way that NEPA advances environmental justice is by requiring the federal government to consider a variety of health and socioeconomic impacts that may be caused by proposed actions . . .”).

⁸⁸ 40 C.F.R. § 1506.6 (2007) (setting forth initiatives federal agencies should undertake to assure public participation in the NEPA review process); see also *id.* § 1500.2(d) (requiring federal agencies to “encourage and facilitate public involvement in decisions which affect the quality of the human environment”); *id.* § 1503.1(a) (“After preparing a draft environmental impact statement and before preparing a final environmental impact statement the agency shall: . . . [r]equest comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected.”).

⁸⁹ Johnson notes the two-way nature of this process; not only does the affected community learn about the government’s plans and their environmental impacts, but communities “can provide unique information about the impacts of the proposed action that the government may be unable to obtain elsewhere,” potentially enabling the government to identify alternative actions to, and/or mitigation of the preferred action. Johnson, *supra* note 84, at 572.

government action.⁹⁰ These procedures also give communities information about the impacts of proposed projects that might otherwise go unnoticed and unaccounted for, as well as information about the process by which government agencies make decisions.⁹¹ In the face of the balkanization of population, both within the urban core and between cities and their surrounding communities, NEPA encourages collaboration. If spillover environmental effects reach beyond the immediate impact of a proposed project, the Act provides an inclusive process that brings diverse constituencies together to identify and recommend mitigation for environmental impacts. NEPA thus presents a forum in which decision makers and affected individuals can share and debate different views about the desirability of proposed changes to the urban and suburban landscape.

NEPA offers agencies an important tool for gathering essential information about the projected impacts of pending land use decisions before those decisions are made.⁹² In order to understand the effect of a proposed change on “a particular geographical ‘patch’ [i.e., neighborhood] in the city, one should know something about the composition of its inhabitants, its natural and social resources (or lack thereof), the type and quality of its infrastructure, [and] how it (the patch) is arranged

⁹⁰ *Id.* at 571; *see also* Karkkainen, *supra* note 5, at 345 (noting that preparation of an EIS is “costly and time-consuming,” making it a “favorite tool of those seeking to kill or delay projects”). To make this information more accessible to the lay public, CEQ regulations require that EISs “normally” be less than 150 pages in length, 40 C.F.R. § 1502.7, and be written in “clear prose” so that “the public can readily understand them,” *id.* § 1502.8. But there is no requirement that NEPA documents be translated for communities that do not speak English. Johnson, *supra* note 84, at 601–02. *But see* *El Pueblo Para el Aire y Agua Limpio v. County of Kings*, [1992] 22 *Envtl. L. Rep. (Envtl. Law Inst.)* 20,357, 20,357–58 (Cal. Super. Ct. Dec. 30, 1991) (citing the state government’s failure to translate an environmental impact report into Spanish where forty percent of the affected population was non-English speaking as one reason for invalidating the permit for a hazardous waste incinerator).

⁹¹ *See* Johnson, *supra* note 84, at 571.

⁹² *See* Joseph L. Sax, *The Search for Environmental Rights*, 6 *J. LAND USE & ENVTL. L.* 93, 98 (1990) (“[The NEPA] process is one of the very few means by which the obligation to gather adequate information and then to subject it to careful and detailed consideration can be enforced.”). *But see* Karkkainen, *supra* note 5, at 346 (complaining that the “[o]ver-inclusiveness” of NEPA’s information-collecting function acts to “dilute the overall quality of information, as good information is swamped by bad”).

in relationship to other 'patches' in the city"⁹³ This is the type of information that is ordinarily collected and evaluated under NEPA as part of the impact assessment process.

In urban land use decision making, NEPA's public participation requirements offer an antidote to an approach that generally calls for "creation of public policy at the 'top' to be sent 'down' through the system for implementation in the community."⁹⁴ By bringing local residents into the decision-making process, NEPA enhances accountability to community and individual needs and provides the circumstances in which the "complexity and context of environmental dilemmas such as urban sprawl"⁹⁵ can be considered. NEPA's concept of "devolved collaborative planning" shifts planning for urban spaces downward to the community or neighborhood level and recognizes the importance of understanding how the "distribution of ecosystem resources is interconnected with socioeconomic and institutional factors."⁹⁶

NEPA can also be an antidote to the "atomization" of the land use decision-making process.⁹⁷ Decisions about projects are generally made in response to particular proposals by developers.⁹⁸ Projects are often evaluated "on a parcel-by-parcel basis" and may be conducted with no public input, and

⁹³ Foster, *supra* note 5, at 540. The concept of "patch dynamics" refers to how "social, geological, economic, and political variables determine the character and 'footprint' of a particular land use on its surrounding landscape." *Id.* at 539; *see also* Babcock, *supra* note 63, at 2101-02 (discussing Stuart Kauffman's "quilt of nonoverlapping patches," which demonstrates how organizations that are broken into patches, like urban neighborhoods, "can lead, as if by an invisible hand, to the welfare of the whole organization" (quoting STUART A. KAUFFMAN, AT HOME IN THE UNIVERSE: THE SEARCH FOR THE LAWS OF SELF-ORGANIZATION AND COMPLEXITY 246 (1995))).

⁹⁴ Kubasek & Frondorf, *supra* note 15, at pt. III.B.; *see also* Selmi, *supra* note 66, at 975-80 (describing four rationales for why public participation is important: (1) increased likelihood that the public will accept the ultimate decision; (2) promotion of civic discourse and democracy; (3) input of public expertise into the government decision-making process; and (4) compelling government agencies "to confront the environmental consequences of their actions").

⁹⁵ Kubasek & Frondorf, *supra* note 15, at pt. III.B.

⁹⁶ Foster, *supra* note 5, at 578.

⁹⁷ *See id.* at 546-49.

⁹⁸ *Id.* at 547.

occasionally, without agency review.⁹⁹ This “atomization of land use decisions has contributed in no small part to the fragmentation, and even specialization, of urban space.”¹⁰⁰ As a result, neighborhoods become divided by race, income, and/or class. In some cases, entire metropolitan areas split into “‘two nations,’ rich and poor, white and black, expanding and contracting.”¹⁰¹ NEPA’s requirement that a proposed project’s indirect and cumulative impacts, including any possible disparate impacts on minority or poor communities, be identified and assessed prevents such fragmentation and segregation.¹⁰²

To protect minority and low-income communities, the Executive Order on Environmental Justice requires agencies to afford these groups more procedural rights.¹⁰³ When these vulnerable populations are involved, federal agencies must analyze the environmental, economic, and social impacts of proposed federal agency action on them.¹⁰⁴ Agencies must mitigate negative effects and provide opportunities for these

⁹⁹ *Id.* at 547–48 (noting that the liberalization of zoning amendments and variances has empowered developers to the derogation of “public deliberative processes that might consider the social costs and benefits” underlying a particular land use decision).

¹⁰⁰ *Id.* at 548.

¹⁰¹ *Id.* (quoting GERALD E. FRUG, *CITY MAKING: BUILDING COMMUNITIES WITHOUT BUILDING WALLS* 4 (1999)).

¹⁰² 40 C.F.R. § 1508.7 (2007) (defining “cumulative impact” as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions”); *see also* Peter H. Lehner, *Act Locally: Municipal Enforcement of Environmental Law*, 12 STAN. ENVTL. L.J. 50, 78 (1993) (“Cities [should] take advantage of the statutes’ aggressive insistence that federal and state agencies consider ‘the accumulation of small amounts of pollutants added to the air and water by a great number of individual, unrelated sources.’” (quoting *Natural Res. Def. Council, Inc. v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975))); *Town of Huntington v. Marsh*, 859 F.2d 1134, 1140–41 (2d Cir. 1988) (finding inadequate an EIS prepared by the Army Corps of Engineers because it failed to adequately examine the types, quantities, and cumulative effects of dredged spoils to be dumped in Long Island Sound); *Sierra Club v. Penfold*, 857 F.2d 1307, 1319–21 (9th Cir. 1988) (upholding district court decision requiring an analysis of the cumulative impact of mining in four watersheds).

¹⁰³ Collin & Collin, *supra* note 34, at 86 (describing the relevant elements of Executive Order No. 12,898 and noting that it “has specific directions for NEPA activities that directly increase the role of communities in environmental decision-making”).

¹⁰⁴ *Id.*

communities to participate in the NEPA process.¹⁰⁵ This latter requirement means that the process of identifying and mitigating harmful effects must be done in consultation with these communities. In addition, the Order requires federal agencies to improve the accessibility of these groups to public meetings, official documents, and notices of meetings or decisions.¹⁰⁶

As discussed above, NEPA offers an array of important tools to city residents concerned about their neighborhoods and way of life. The statute also opens the door for legal challenges to activities that are potentially harmful to the urban environment, such as activities that threaten the continued vitality of urban neighborhoods.¹⁰⁷ Courts have repeatedly held that an EIS must consider the impact of a proposed activity on the quality of urban life, including the project's effect on traffic and neighborhood stability as well as its potential to spread decay and blight to the surrounding community.¹⁰⁸

Indeed, federal courts have used NEPA to protect neighborhoods from intrusions accompanied by other physical impacts on the environment.¹⁰⁹ The challenge is convincing courts to extend NEPA to apply to seemingly non-

¹⁰⁵ *Id.*

¹⁰⁶ Exec. Order No. 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629, 7629-30 (Feb. 11, 1994).

¹⁰⁷ *See, e.g.,* City of Davis v. Coleman, 521 F.2d 661, 666 & n.3 (9th Cir. 1975) (directing preparation of an EIS on highway interchange); United States v. 27.09 Acres of Land, in Town of Harrison, 760 F. Supp. 345, 351-52, 355 (S.D.N.Y. 1991) (enjoining U.S. Postal Service from constructing a post office until an EIS on proposed action was prepared because of project's cumulative impacts on water supply, wetlands, and traffic); *see also* 40 C.F.R. § 1508.27 (b)(3) (“[u]nique characteristics of the geographic area such as proximity to historic or cultural resources”); *id.* § 1508.27 (b)(8) (degree to which action may adversely affect areas or objects listed or eligible for listing in the National Register of Historic Places, or may destroy significant scientific, cultural, or historic resources).

¹⁰⁸ Trinity Episcopal Sch. Corp. v. Romney, 523 F.2d 88, 93 (2d Cir. 1975); Hanly v. Mitchell (*Hanly I*), 460 F.2d 640, 646-47 (2d Cir. 1972); Ross, *supra* note 12, at 367 (“[S]ignificant effects include economic and physical deterioration in the community, which contribute to an ‘atmosphere of urban decay and blight, making environmental repair of the surrounding area difficult if not infeasible.’” (quoting City of Rochester v. U.S. Postal Serv., 541 F.2d 967, 973 (2d Cir. 1976))).

¹⁰⁹ *See, e.g.,* Como-Falcon Cmty. Coal., Inc. v. U.S. Dep’t of Labor, 609 F.2d 342, 345-46 (8th Cir. 1979) (preserving a neighborhood’s character is a legitimate element of the human environment provided that it is combined with a physical impact on the environment).

environmental effects (i.e., destruction of social capital) of urban land use decisions. As discussed below, these barriers can be overcome.

IV OVERCOMING BARRIERS TO NEPA'S APPLICATION IN THE URBAN ENVIRONMENT

The federal action triggering NEPA's requirement to prepare an EIS must be major and have a significant effect on the human environment.¹¹⁰ Courts have interpreted the latter requirement as necessitating some change to the physical environment.¹¹¹ Land use changes in the inner city thus pose two problems: (1) they may be too small to be major and/or their impact too insignificant to trigger the duty to prepare an EIS; and (2) they may not be legally viewed as having an effect on the physical environment when what is principally destroyed is a neighborhood's social capital.¹¹²

¹¹⁰ 42 U.S.C. § 4332(2)(C) (2006).

¹¹¹ See, e.g., *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 773–74 (1983); *Olmsted Citizens for a Better Cmty. v. United States*, 793 F.2d 201, 204–05 (8th Cir. 1986); *Como-Falcon*, 609 F.2d at 345.

¹¹² There are other limitations on the applicability of NEPA to environmental problems that arise in cities that are beyond the scope of this Article. For example, the Clean Water Act exempts from NEPA's impact statement requirements issuance of discharge permits (except for new sources) and the construction of certain large-scale federal projects, like sewage treatment plants. 33 U.S.C. § 1371(c)(1) (2006); see also Green, *supra* note 26, at 106. Pursuant to EPA regulations, hazardous waste permits under the Resources Conservation and Recovery Act (RCRA) are "explicitly" exempt from any EIS preparation requirement. 40 C.F.R. § 124.9(b)(6) (2007). The theory behind the exemption is that the review process for issuance of a hazardous waste permit is the "functional equivalent" of an EIS. *Alabama ex rel. Siegelman v. Env'tl. Prot. Agency*, 911 F.2d 499, 504 & n.11 (11th Cir. 1990). This theory is seriously flawed because, among other reasons, RCRA does not require that agencies consider the socioeconomic or cultural impact of the permit on the affected community, alternatives to the proposed action, indirect and cumulative impacts, and mandates significantly less public participation in the process. Johnson, *supra* note 84, at 589–93. Since under both these laws, states can issue permits pursuant to federal delegation, NEPA would also not apply to those permits. *Id.* at 595. Nor does the EPA require the preparation of an EIS for its rulemakings involving the setting of some environmental protection standards, such as a National Ambient Air Quality Standard under the Clean Air Act. See 42 U.S.C. § 7409 (2006). Again, this is based on a functional equivalency rationale, but for many of the same reasons, the standard-setting process is less inclusive than that required under NEPA. See *id.* Federal highway laws have streamlined the environmental review of roads under NEPA, reducing public participation opportunities and lessening the scope of

When one views in isolation the destruction of a single neighborhood garden or corner grocery store from some federally financed urban renewal project, it is hard to imagine that NEPA could play any role in assessing its impact.¹¹³ However, the application of conservation biology theory enhances the significance of these seemingly minor changes to the urban landscape.

Conservation biology sees ecosystems “not as permanent entities engraved on the face of the earth but as shifting patterns in the endless flux, always new, always different.”¹¹⁴

review. See Karkkainen, *supra* note 5, at 337 n.23 (describing the Federal Highway Administration’s (FHWA) initiative to accelerate and streamline the pace of required environmental reviews under NEPA in response to Exec. Order No. 13,274, 3 C.F.R. § 250 (2003) (prompting federal agencies to “expedite environmental reviews of high-priority transportation infrastructure projects”). FHWA also claims that this environmental streamlining initiative is in response to the Transportation Equity Act for the 21st Century, Pub. L. 105-178, § 1309, 112 Stat. 107, 232 (1998) (requiring project-specific “coordinated environmental review” together with time specifications and concurrency requirements).

¹¹³ See, e.g., *Riverfront Garden Dist. Ass’n v. City of New Orleans*, No. CIV.A.00-544, 2000 WL 1789952, at *6-*9 (E.D. La. Dec. 6, 2000) (holding that federal resurfacing of existing street, which accompanied construction of a new road and rerouting of traffic through residential streets, did not justify federalizing the entire project, sustaining FHWA’s issuance of a categorical exemption for the activity); *S. Bronx Coal. for Clean Air, Inc. v. Conroy*, 20 F. Supp. 2d 565, 571 (S.D.N.Y. 1998) (holding that even though the Federal Transportation Administration was required to concur in how property it had previously funded would be disposed of once it was no longer needed for its original purpose, it was not required to prepare an EIS addressing the impacts of the entire project); see also Foster, *supra* note 5, at 551 (noting that the destruction of a single community garden in a dense urban area may not cause a significant *physical* impact on that environment, despite its other impacts on the community).

¹¹⁴ DONALD WORSTER, *NATURE’S ECONOMY: A HISTORY OF ECOLOGICAL IDEAS* 412 (Cambridge University Press 2d ed. 1994). An exponent of such theories is Ilya Prigogine, who with Isabelle Stengers argued that “[i]t is the processes associated with randomness, openness, that lead to higher levels of organization, such as dissipative structures.” Alvin Toffler, *Foreward* to ILYA PRIGOGINE & ISABELLE STENGERS, *ORDER OUT OF CHAOS: MAN’S NEW DIALOGUE WITH NATURE*, at xxi (1984) (describing Prigogine and Stengers’ thesis); see also William H. Rodgers, Jr., *Where Environmental Law and Biology Meet: Of Pandas’ Thumbs, Statutory Sleepers, and Effective Law*, 65 U. Colo. L. Rev. 25, 47 (1993) (“The study of evolutionary biology is the study of systems that . . . display chaotic, nonlinear, and unpredictable characteristics.”); Karkkainen, *supra* note 5, at 344-45 (“[E]cological systems are complex, dynamic, and non-linear, consisting of numerous mutually interdependent components and processes, interacting in complex and hard-to-calculate ways, and exhibiting numerous threshold effects and high levels of ‘inherent stochasticity.’” (quoting REED F. NOSS ET AL., *THE*

Conservation biology teaches that the smallest environmental changes in one place may have substantial impacts somewhere else; even the smallest “perturbations or fluctuations can become amplified into gigantic, structure-breaking waves.”¹¹⁵ Accordingly, “[n]o organism functions independently of its environment, and no environment can be changed without changing the organisms that are part of it.”¹¹⁶

Viewing cities through a conservation biology lens means seeing urban neighborhoods and their social networks as being in a constant state of flux; changes to them cause restructuring and adjustments throughout the entire metropolitan landscape.¹¹⁷ This coupling or interaction among communities within cities can be seen in the mobility of urban populations around the city and where networks develop “across neighborhoods and . . . around interests.”¹¹⁸

Thus, small changes in complex, evolving systems, like cities, can aggregate into larger problems, setting off cascades of problems elsewhere in the urban environment. Positive feedback loops—social and economic networks like streets within and between neighborhoods that have developed around a single land use—can cause an entire neighborhood or even a city to be changed as part of this cascade, sometimes with irreversible or catastrophic consequences.¹¹⁹ In this way, the

SCIENCE OF CONSERVATION PLANNING: HABITAT CONSERVATION UNDER THE ENDANGERED SPECIES ACT 64 (1997))).

¹¹⁵ See Toffler, *supra* note 114, at xvii.

¹¹⁶ Rodgers, *supra* note 114, at 53.

¹¹⁷ See generally Babcock, *supra* note 63 (discussing the various elements of complexity theory); see also Lord et al., *supra* note 1, at 328 (listing the “patchiness of the natural community” and its “connectivity to other open spaces” as important for understanding how urban natural sites are “nested within the context of an urban system and recognized for both [their] biophysical and socioeconomic ‘drivers’”). One effect of this interaction between urban neighborhoods is that finding solutions to a problem in one patch (what evolutionary biology calls “optimization”) can change the problem to be solved in adjacent patches—“an evolutionary, dynamic process that continues across the entire system or quilt of patches . . .” Babcock, *supra* note 63, at 2101.

¹¹⁸ Foster, *supra* note 5, at 580 (citing, as an example of this, community gardens in New York City, where many of the garden members did not live in the neighborhoods where the gardens were located).

¹¹⁹ See Toffler, *supra* note 114, at xvii (noting that Prigogine and Stengers show how the smallest of disturbances can create large perturbations in systems, sometimes leading to their collapse or complete restructuring).

destruction of a single community amenity, like a corner bodega that has been central to the formation and sustenance of these communal networks, could destroy the social capital of a block or an entire neighborhood.¹²⁰ Depending on the extensiveness of the social networks involved in maintaining that amenity, the impact could extend to more than one neighborhood.¹²¹ As the neighborhood destabilizes, a chain of consequences is set in motion causing residents to move to another neighborhood, changing the new neighborhood, and causing the pattern to repeat itself in a destructive positive feedback loop. Suddenly, what originally appeared to be a small impact has now grown in size. If the resultant effects are sufficiently environmental, the initial event may be large enough to trigger NEPA.

Current law is clear that federal agencies do not need to prepare an EIS when a proposed federal action “only causes socio-economic effects on the human environment”¹²² unless it is “interrelated” with the natural and physical effects on the environment.¹²³ This interpretation could raise a serious obstacle to applying NEPA to adverse impacts to a community’s social capital.¹²⁴

¹²⁰ See, e.g., David Gonzalez, *A Caribbean Corner of Brooklyn, Fighting to Survive*, N.Y. TIMES, Feb. 11, 2008, at B1 (describing the impact on a community of the proposed destruction of a Latin American market to be replaced by housing, and observing that “beyond the buying and selling of fruits and vegetables, the fleeting exchanges and timeworn rituals at the market bind a community”).

¹²¹ See generally Babcock, *supra* note 50 (discussing how small sources of environmental problems, through positive feedback loops, can result in systemic changes to an entire ecosystem).

¹²² Cheryl A. Calloway & Karen L. Ferguson, *The “Human Environment” Requirements of the National Environmental Policy Act: Implications for Environmental Justice*, 1997 DET. C.L. MICH. ST. U. L. REV. 1147, 1159 (1997).

¹²³ 40 C.F.R. § 1508.14 (2007); see also *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 773–74 (1983) (holding that NEPA only requires that federal agencies consider health and socioeconomic effects of a proposed action if the action causes a change in the physical environment and there is a “reasonably close causal relationship” between that change and the health effects); *Olmsted Citizens for a Better Cmty. v. United States*, 793 F.2d 201 (8th Cir. 1986) (holding an EIS was not required for the conversion of part of a mental health campus into a federal prison—even though the activity might introduce weapons and drugs into the community, cause an increase in crime, and halt neighborhood development—because none of these impacts resulted from any physical changes associated with the conversion).

¹²⁴ *But see* Foster, *supra* note 5, at 552–53 (“Drawing a line, even an opaque one, around ‘purely’ social effects . . . exclud[es] social concerns that are unrelated to the primary resources necessary to construct and sustain healthy human

However, changes that destroy a neighborhood's social capital by disrupting the social and economic ties that bind a community together do, in fact, have a profound effect on the physical environment.¹²⁵ For example, any change that provokes the redistribution of community residents can lead to overcrowding in other neighborhoods, increased blight in the abandoned neighborhood from empty lots and decaying buildings, and urban sprawl. Any one of these consequences can have a profound effect on the physical environment.¹²⁶

In this sense, impacts to social capital are substantially different from the "psychological distaste" of the neighborhood residents for the new jail in *Hanly II*,¹²⁷ the apprehensions of opponents of the low-income housing project in *Strycker's Bay Neighborhood Council*¹²⁸ or, in *Metropolitan Edison*, the fear of a catastrophic nuclear accident from the restart of an unaffected

communities." Foster argues that the law reduces these social concerns to mere "preferences" and concludes that projects with the "potential to alter the character of a neighborhood (e.g., bringing more commercial activity into the area), the psychological fear of 'people pollution' (i.e., the introduction of a new social class in the neighborhood), or the distaste for (or psychological fear of) certain types of land uses" would all, as a result of cases like *Metropolitan Edison*, be excluded from NEPA's reach. *Id.*; see also Johnson, *supra* note 84, at 585:

If Congress wanted agencies to determine whether the impact of a proposed action is significant based solely on physical environmental impacts, Congress could have required agencies to prepare an EIS for major federal actions that "significantly affect the environment" or "significantly affect the physical environment." By using the term human environment, Congress expressed its intent that the government consider a wide range of socioeconomic, cultural, and health impacts when determining whether it is necessary to prepare an EIS for a proposed action.

¹²⁵ Foster points out that the social concerns that fall outside NEPA include projects that change "the character of a neighborhood," such as the introduction of "more commercial activity," changes that may result from bringing a "new social class" into the community (e.g., an increase in street crime or the corner bodega being replaced by a Starbucks, depending on the income level of the new residents), or unwanted land uses that may accelerate the downward spiral of a neighborhood. Foster, *supra* note 5, at 552–53.

¹²⁶ *Id.* at 555–56 (describing how the location of big-box retail centers can "cause a ripple of store closures and consequent long-term vacancies" in established retail areas leading to the physical deterioration of those areas (quoting *Bakersfield Citizens for Local Control v. City of Bakersfield*, 22 Cal. Rptr. 3d 203, 222 (Cal. Ct. App. 2004))).

¹²⁷ *Hanly v. Kleindienst (Hanly II)*, 471 F.2d 823, 833 (2d Cir. 1972).

¹²⁸ *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227 (1980).

nuclear power plant, which itself would have only minimal effects on the environment.¹²⁹ Unlike restarting an undamaged nuclear power plant, impacts to social capital are triggered by changes to the physical environment, like the construction of a new federal building or a federally subsidized redevelopment of a block. Moreover, there is a “reasonably close causal relationship” between the physical change and the resulting socioeconomic impact, thereby meeting the test in *Metropolitan Edison*.¹³⁰

Impacts to social capital are also distinguishable from cases involving EIS requests on the basis of economic and social effects alone. For instance, in *Olmsted Citizens for a Better Community v. United States*, the plaintiffs challenged the adequacy of an EIS for the conversion of part of a mental health campus into a federal prison.¹³¹ In contrast to the corner bodega in the hypothetical mentioned earlier, none of the identified impacts in *Olmsted*—the introduction of weapons and drugs into the community, an increase in crime, and possible halt to neighborhood development—resulted from any physical change associated with the conversion.¹³²

Even if the destruction of a neighborhood’s social capital by itself does not trigger the obligation to prepare an EIS, CEQ’s regulations require that impacts to social and cultural resources be included in assessing the significance of an environmental impact for purposes of determining whether an EIS must be prepared.¹³³ This assessment process culminates in an environmental assessment (EA)¹³⁴ and, in all likelihood, in a

¹²⁹ *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 775 & n.9 (1983).

¹³⁰ *Id.* at 774.

¹³¹ *Olmsted Citizens for a Better Cmty. v. United States*, 793 F.2d 201, 204 (8th Cir. 1986).

¹³² *See id.* at 205.

¹³³ *See* 40 C.F.R. § 1508.9(b) (2007) (including among the required topics in an EA a discussion of environmental impacts from, and alternatives to, the proposed action); *id.* § 1502.16(g) (defining the term environmental consequences to include a discussion of “[u]rban quality, historic and cultural resources, and the design of the built environment”); *id.* § 1502.14 (requiring the discussion of the environmental consequences, as defined in 40 C.F.R. § 1502.16, of the proposal and alternatives to it).

¹³⁴ *Id.* § 1501.3(b) (“Agencies may prepare an environmental assessment on any action at any time in order to assist agency planning and decisionmaking.”).

finding of no significant impact (FONSI).¹³⁵ Although this “streamlined” EA includes many of the critical elements of an EIS,¹³⁶ it is not a full EIS. For example, the scope of the information collected and public participation opportunities for an EA are more limited. The latter is only required “to the extent practicable.”¹³⁷

The EA’s diluted environmental review, especially where it limits the scope and content of that review as well as public participation in the process, is significant because the vast majority of the actions agencies review under NEPA result in the preparation of an EA rather than an EIS.¹³⁸ Fortunately, an

¹³⁵ *Id.* § 1508.13; see Karkkainen, *supra* note 5, at 347–48 (reporting that every year federal agencies produce approximately 50,000 EAs resulting in FONSI’s).

¹³⁶ 40 C.F.R. § 1508.9 (including among other elements that must be included in an EA, the need for the proposed action, an assessment of the environmental impacts of the proposed action, alternatives to the proposed action, and any alternative analysis triggered by section 102(2)(e) of NEPA).

¹³⁷ *Id.* § 1501.4(b). Indeed, circuit courts have almost universally held that public review and comment is not required. See *Biodiversity Conservation Alliance v. U.S. Bureau of Land Mgmt.*, 404 F. Supp. 2d 212, 220 (D.D.C. 2005) (holding that the circulation of a draft EA among federal agencies is not required, and the public need only be involved “to the extent practicable,” based on a “fact-intensive inquiry made on a case-by-case basis”); accord *Alliance to Protect Nantucket Sound, Inc. v. U.S. Dep’t of the Army*, 398 F.3d 105, 114–16 (1st Cir. 2005); *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1279 (10th Cir. 2004); *Pogliani v. U.S. Army Corps of Eng’rs*, 306 F.3d 1235, 1238–39 (2d Cir. 2002). But see *Citizens for Better Forestry v. U.S. Dep’t of Agric.*, 341 F.3d 961, 969–70 (9th Cir. 2003) (“We have previously interpreted [CEQ] regulations to mean that ‘[t]he public must be given an opportunity to comment on draft EAs and EISs.’” (quoting *Anderson v. Evans*, 314 F.3d 1006, 1016 (9th Cir. 2002))). For example, ambiguity in CEQ’s regulations leaves open the possibility that unless an agency’s own NEPA regulations require, agencies need not notify the public of their intent to prepare an EA, circulate a draft EA for public comment, or even “solicit public comment” on an EA. Johnson, *supra* note 84, at 576. Even CEQ’s “plain language” requirement does not apply to EAs. *Id.* at 600–01. However, if the impact affects an environmental justice community, as it most likely will, public participation requirements become more extensive. See *id.* at 574–78 (noting that these provisions can be used by federal agencies to address environmental justice concerns raised by federal actions that do not require the preparation of an EIS).

¹³⁸ See Johnson, *supra* note 84, at 575–76 (noting that ninety-nine percent of these initiatives fall within the EA process and that agencies are proposing to mitigate the adverse impacts of their proposed actions in advance to avoid preparing the much more time-consuming EIS). On the value of civic participation generally, see Byrne & Diamond, *supra* note 19, at 575 (“Democratic participation by citizens in civic affairs is a signature tenet of American society.”). Byrne and Diamond also identify some of the costs of civic participation, including “involvement in conflicts with . . . adverse parties, frustration with participants or with the pace of progress,” out-of-pocket costs, and time. *Id.* at 580.

agency's preparation of an EA opens up other avenues for citizen influence besides the formal comment process. One way agencies gauge the community's interest in a proposed action is by the number of citizens who ask to get on the agency's mailing list for distribution of the final document. Showing this interest early in the process demonstrates the extent of community concern as well as the likelihood of continuing community involvement as the project goes forward. In addition, an agency's action may be informally influenced through meetings, letters, and telephone conversations. Residents can present their concerns about the consequences of the proposed action on their community's way of life (their social capital) before the EA is published. Many FONSI's include measures to mitigate projected environmental impacts from the proposed action to reduce them below "the EIS-triggering threshold of 'significant.'"¹³⁹ Regardless of their questionable legality,¹⁴⁰ the prospect of mitigated FONSI's holds even greater promise of encouraging steps to protect the community.¹⁴¹

V CONCLUSION

Although it may seem improbable to apply NEPA in an urban environment, the law fits and performs generally well there. In fact, NEPA brings important and unique tools into the urban environment for assessing the impacts of land use changes that might otherwise escape federal review. Obstacles to NEPA's application to these urban land use changes can be overcome, especially when cities are seen as evolving, complex systems where a change to one neighborhood's viability can ripple outward, affecting other neighborhoods and sometimes the

¹³⁹ Karkkainen, *supra* note 5, at 348.

¹⁴⁰ *See id.* at 348 (explaining that although he favors mitigated FONSI's "to a point," to their critics, "this looks like cheating" because it avoids an otherwise mandatory requirement to prepare an EIS if the expected impacts will be significant and allows an agency to take "a procedural shortcut" by selecting mitigation measures before the full analysis is completed).

¹⁴¹ Karkkainen praises mitigated FONSI's because they show that agencies are actually "redefining projects" at an "earlier stage of project design" and doing so at a lower cost and in less time "than would be required if they went through the full-blown EIS process." *Id.* at 348-49.

entire metropolitan area to its outermost boundaries and beyond.

If these obstacles are not overcome, the viability of urban neighborhoods—what draws people to cities and makes them want to stay there—will continue to deteriorate without proper attention being paid to the causes of the downward spiral. Further urban decay will fuel the exodus of people from cities and bring about even more deterioration. Although arguably an expansion of NEPA’s scope after decades of judicial contraction,¹⁴² this Article’s proposal is consistent with NEPA’s purpose to recognize “the profound influences of . . . high-density urbanization,”¹⁴³ to promote diversity,¹⁴⁴ and to “assure for all Americans . . . esthetically and culturally pleasing surroundings; . . . [the preservation of] important historic [and] cultural . . . aspects of our national heritage; . . . [and the achieving of] a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities”¹⁴⁵

¹⁴² See generally Lindstrom, *supra* note 5.

¹⁴³ 42 U.S.C. § 4331(a) (2006).

¹⁴⁴ *Id.* § 4331(b).

¹⁴⁵ *Id.*

