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Gaining Ground Information Database

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Gaining Ground Information Database

A Report on a New Internet Research Library
of Innovative Land Use Laws, Regulations, and Practices

John R. Nolon, Jessica A. Bacher, and Susan Moritz, EDITORS
Land Use Law Center, Pace University School of Law



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***Gaining Ground Information Database*
Internet Library Project**

SENIOR EDITOR John R. Nolon
RESEARCH COORDINATOR Jessica A. Bacher
RESEARCH CONSULTANT Susan Moritz
DATABASE COPYRIGHT Land Use Law Center, Pace University
School of Law, 2004

To access the *Gaining Ground*
Information Database Internet Library,
go to www.landuse.law.pace.edu

Gaining Ground Information Database

**A Report on a New Internet Research Library
of Innovative Land Use Laws, Regulations, and Practices**

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The Internet library project *Gaining Ground Information Database* (www.landuse.law.pace.edu) is the work of dozens of students, staff, and faculty at two universities.

- Members of classes in Land Use Law at Pace University School of Law and in Local Environmental Law and Land Use Practices at Yale's School of Forestry and Environmental Studies scoured the country looking for, evaluating, and describing the state and local laws entered in the database. These classes were taught by John R. Nolon, who is Professor of Law at Pace and Visiting Professor at Yale. Pace student Jennifer Potter formatted them prior to entry in the da
- Elizabeth S. Wyman, a graduate of the Yale School of Forestry and Environmental Studies, wrote the narrative text section of this report entitled "A Report on its Development, Contents, and Intended Use" as her Master's Project. She ably describes not only the process of developing the database but its contents and importance.
- Yale Teaching Fellows Nicole Vickey and Jennifer Molnar and Yale graduate students Ona Ferguson, Brian Marcaurelle, and Alison Van Gorp helped guide the research conducted at Yale and made significant substantive contributions to the database.
- Professor Marie Stefanini Newman, Library Director, and her staff in the Law Library at Pace University School of Law – particularly Cynthia Pittson, Head of Reference Services, and David Williams, Reference Librarian and Webmaster – helped design the project, solved numerous hardware, software, and search methods problems, and created the vessel needed to make the database readily available and easily searchable.
- Yale student Kathryn A. Zyla consulted on the technical aspects of launching the database and developing the protocols for data entry. She worked with Ann Marie McCoy, the Administrative Assistant of the Land Use Law Center, to see that material was properly entered and easily accessible.
- Professor Jessica A. Bacher, who is also a staff attorney of the Land Use Law Center at Pace, provided the management the project needed to be launched on schedule.
- Susan Moritz, Research Consultant to the Land Use Law Center, chose from the database the illustrative material found in this monograph.

Gaining Ground information Database is a project of the Land Use Law Center's Joint Program of Land Use Studies through which it conducts programs outside New York State in conjunction with institutional partners such as university departments, nongovernmental organizations, and state and federal agencies. The Land Use Law Center acknowledges the help and encouragement it has received with this project from Dean James Gustave Speth and faculty members of Yale's School of Forestry & Environmental Studies, and from the Yale School of Forestry & Environmental Studies Publication Series and its Editor Jane Coppock in producing this report.

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ALABAMA

Vestavia

ARIZONA

Scottsdale

CALIFORNIA

Atascadero

Marin County

Napa County

San Francisco

Santa Cruz County

Santa Rosa

Tiburon

COLORADO

Aspen

Boulder

Boulder County

Fort Collins

Larimer County

CONNECTICUT

Avon

Guilford

New Milford

Wallingford

Washington

Westport

Windsor

DISTRICT OF COLUMBIA

FLORIDA

Boynton Beach

Orlando

Sanibel Island

Tampa

GEORGIA

Fayetteville

IDAHO

Blaine County

Hailey

Ketchum

ILLINOIS

Chicago

Long Grove

IOWA

Des Moines

Iowa City

KANSAS

Iola

Lawrence

Lenexa

MAINE

Lewiston

Limington

Scarborough

MASSACHUSETTS

Gloucester

MICHIGAN

Ann Arbor

MINNESOTA

Duluth

Minneapolis-St. Paul

St. Cloud

MISSOURI

Grandview

St. Louis

MONTANA

Gallatin County

Missoula

NEBRASKA

Lancaster County

NEVADA

Lake Tahoe Region

Las Vegas

NEW HAMPSHIRE

Dover

NEW JERSEY

Readington

Warren

NEW MEXICO

Albuquerque

Santa Fe

Taos

NEW YORK

Brookhaven

Pawling

Suffolk County

OHIO

Brown Township

Columbus

Dayton

Franklin County

Pleasant Township

Yellow Springs

OREGON

Ashland

Eugene

SOUTH CAROLINA

Isle of Palms

TEXAS

Austin

Brackettville

San Marcos

UTAH

Mapleton

Park City

Salt Lake County

Sand City

WASHINGTON

Olympia

Thurston County

Tumwater

Yelm

WEST VIRGINIA

Marmet

WISCONSIN

Dane County

Dunn

River Falls

Sun Prairie

Sawyer County

WYOMING

Teton County

Introduction

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Visiting Professor, Yale School of Forestry and Environmental Studies

WHAT IS GAINING GROUND?

Gaining Ground Information Database (www.landuse.law.pace.edu) is an Internet resource developed by the Land Use Law Center and the Law Library at Pace University School of Law in conjunction with the Yale School of Forestry and Environmental Studies. The database contains information about the methods used by government to control the use of the land in the public interest. It includes federal, state, and local laws and regulations, commentaries, research papers, and a variety of research aids. The database is designed to be accessible by and helpful to a wide variety of users.

This initial overview of the *Gaining Ground Information Database*, published in the fall of 2004 as a Yale School of Forestry & Environmental Studies Publication Series Report, focuses on smart growth and environmental protection laws that have been adopted at the municipal level.

The information is intended for local officials and others who influence local land use decision-making, principally land use professionals, researchers, and the personnel of nongovernmental organizations and state and federal agencies. These are critical participants in the process of creating local laws needed to respond to changes in land use patterns and environmental circumstances. By providing information about recently adopted innovative local laws to these key individuals, *Gaining Ground* will facilitate the diffusion of innovation in land use law and practice.

In addition to local laws and regulations, *Gaining Ground* also contains federal and state laws, commentaries that explain land use law and practice at each level of government, and research resources relevant to governmental control of land use. Although designed to contain material from other countries, the initial version of the database is limited to U.S. law and practice. Within the U.S. system, federal and state laws are included that affect land use patterns and the environment directly by regulating private conduct and, indirectly, by influencing local lawmaking and policy. The material contained in the *Information Database* about federal and state land use law is instructive to researchers, officials, professionals, and others interested in under-

standing and influencing policy and law at all levels of government.

Over time, our electronic database of land use law and practice will grow. By the spring of 2005, laws of all 50 states that enable, direct, and preempt the land use decisions of municipal governments will be added. This will be followed by material regarding land use and resource protection law in other countries. Each month, innovative local, state, and federal laws will be added, along with commentaries, research papers, and research resources.



The users of *Gaining Ground Information Database* are encouraged to freely utilize and influence the content of this library of land use information. Users can help by offering ideas about information that should be added, as well as by sending in actual content to be included: local and state laws, research papers or research resources that will be helpful to others in their explorations. Suggestions and material can be emailed to landuse@law.pace.edu.

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WHO SHOULD USE THE INFORMATION DATABASE?

We have prepared *Gaining Ground* for a variety of users. We imagine a citizen leader in Michigan, for instance, agitated about the continuing loss of natural habitat areas due to urban sprawl turning to the database to find out what her municipality can do. After talking to the lawyer for her municipality, she finds out that the lawyer isn't sure that local governments in Michigan have the legal authority to protect habitat areas. The leader can use the library to see whether other municipalities in her state or region have adopted any relevant legislation. By using *Browse Resources*, selecting *State*, then *Michigan*, and reviewing the local laws contained there, she will find an ordinance adopted by *Springfield Township*. The Land Use Law Center's description contained there will encourage her to read it in full and recommend it to the lawyer for her municipality as some evidence that localities can regulate effectively to protect natural resources. That description reads as follows:

The Resource Protection Overlay District establishes procedures to enable the applicant and Township to achieve the mutually compatible objectives of reasonable use of land and protection of vital natural resources. Priority

Resource Protection areas are identified on a map and are designated based on characteristics and not on a minimum or maximum area requirements. Natural resource buffer zones are a minimum of 25 feet in width. Development sites with priority resource protection areas or adjacent to such areas shall ensure that the areas connect to other areas of similar nature.

Encouraged by this information, the municipal lawyer will be interested in a feature to be added to the *Information Database* in the near future: a compendium of state laws that enable local governments to regulate private land in the interest of conservation and smart growth. Links to the laws of the state will be found to direct the lawyer to the existing sources of local authority regarding all aspects of land use. Additionally, both the citizen leader and the municipal attorney can browse the database by *topic* and will find dozens of local laws that protect fish and wildlife habitat.



Similarly, the database is designed for a staff member of a state natural resource department or a regional nonprofit environmental organization charged with encouraging local governments to protect surface and ground water from the polluting effects of runoff from developed lands and construction sites. That staff member can turn to *Gaining Ground Information Database*, browse its contents by topic and will find a large number of relevant ordinances under the topic headings such as aquifer protection, development standards, erosion and sedimentation control, landscaping, natural resource protection, site design standards, stormwater protection, and more. By conducting an *Advanced Search*, he can find ordinances adopted by communities in his region or state and review them as possible models to send to localities within his agency's jurisdiction. For example, within the topic of erosion and sedimentation control, he could choose *Nevada* and find an ordinance adopted by the *City of Henderson* to control hillside development and another adopted by *Lake Tahoe* under the topic title: *water quality control*.

The *Gaining Ground Information Database* contains information on how to promote proper development patterns as well as how to conserve natural resources. National nonprofits and agencies representing the development industry, state economic or industrial development agencies, state and regional builders' groups, and others interested in promoting responsible land development will find helpful resources, again by topic, state, and region.

For example, the database's topics include:

- urban, rural, and suburban smart growth
- affordable housing
- growth limits
- impact fees
- infill development

- planned unit development
- cluster subdivisions
- planned suburban residential communities
- traditional neighborhood district development
- information on state smart growth laws.



Other individuals who work with the agencies and organizations mentioned above, or even EPA, HUD, FEMA, NOAA, and others can scroll through the resources in *Gaining Ground* for help and ideas as they consider policy changes, develop their programs, conduct conferences and training programs, guide interested staff members or the public to needed information,

or struggle to seek solutions to the complex problems of natural resource conservation and smart growth.

HOW TO USE THE *GAINING GROUND* INFORMATION DATABASE

Gaining Ground can be accessed via the Internet at www.landuse.law.pace.edu. The website offers a linked-based database with multiple search options. Detailed directions on how to search can be found on the website by clicking the Help button on the navigation bar.

Quick Search. The Quick Search box, available on the navigation bar of each page, is the most direct way to access the records. The user types words or phrases in the Quick Search box, and the search engine seeks these words or phrases in the Title, Description, and Classifications of each record in the database. The results for a Quick Search are displayed in descending order of relevance. The most relevant items appear at the top of the results.

Advanced Search. The Advanced Search page allows the user to construct more complex searches, or to narrow a search to one or more of the following fields: Title, Subject Matter, or Classification. The Limits feature makes it possible to refine a particular search using additional criteria available in the form of dropdown lists. The user can limit a search by State, EPA Region, Locality, or Type of Law. The results for an Advanced Search are displayed in descending order of relevance. The most relevant items appear at the top of the results.

Browse Resources. To browse all resources included in the database the user can click on Browse Resources in the navigation bar. This feature allows the user to browse all database entries by five classifications: EPA Region, State, Jurisdiction, Topic, or Resource Type. Topics get more specific as you probe in further depth.

EPA REGIONS

Region 1: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Region 2: New Jersey, New York, Puerto Rico

Region 3: Delaware, District of Columbia, Maryland, Pennsylvania, West Virginia

Region 4: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region 7: Iowa, Kansas, Missouri, Nebraska

Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Region 9: Arizona, California, Hawaii, Nevada,

Region 10: Alaska, Idaho, Oregon, Washington

Source: U.S. Department of Environmental Protection
<http://www.epa.gov/epahome/locate2.htm>

RESOURCES CONTAINED IN THE DATABASE

Laws. Gaining Ground contains laws from all jurisdictional levels with summaries and full text for each. The database includes (1) federal legislation and framework laws that affect land use decision-making, (2) state enabling legislation that authorizes municipalities to regulate private land use, and (3) several hundred innovative ordinances that have been adopted and tested by municipalities across the country.

Commentaries. The database contains reports by contributors to *Gaining Ground* that examine selections of laws grouped by topic area or geographical region. Also included in the database are commentaries on state and regional efforts to achieve smart growth and environmental protection, which focus on relevant, enabling legislation.

Published Articles. Articles drawn from local, regional, and national land use publications are included on topics ranging from the land use system, tools, and techniques to more specialized aspects of local environmental law and smart growth.

Student Articles. These papers on a variety of land use topics are written by law students at Pace University School of Law or master's students at the Yale School of Forestry and Environmental Studies as part of their coursework.

Research Aids. Bibliographies and papers, categorized by topic, contain lists of relevant publications and resources for users to expand their research.

Web Links. Links are included to the websites and other resources of federal, state, and regional agencies and organizations. Community planning and dispute resolution are covered, along with smart growth, environmental protection, and other innovative land use strategies.

WHY FOCUS ON LOCAL LAND USE INNOVATION?

This report on *Gaining Ground* focuses principally on local smart growth and environmental protection laws. In our extensive studies of the land use system in the U.S., we have learned that local governments, through the adoption of land use plans and regulations, exercise the principal legal influence over the use of privately owned land. As we begin our studies of the land use control systems in other nations, we are impressed to learn that in most other countries local law and local agencies play a key role in deciding how land and its resources are used.

In the U.S. land use system, the power to control private land use is part of the states' police power, and is regarded as a reserved power of the states, subject to Congress's power to regulate interstate commerce. Early attempts by the federal Environmental Protection Agency to reduce air pollution by intervening in local development decisions were recognized as a threat to the power of the states to control land use, which is secured by the Tenth Amendment. Such concerns led to the 1977 amendments to the Clean Air Act, stating that "[n]othing in this Act constitutes an infringement of existing authority of counties and cities to plan or control land use, and nothing in this Act provides or transfers authority over such land use."

Local governments are regarded as legal instrumentalities of their states. The states have created various types of local governments — cities, towns, townships, villages, boroughs, or counties — and delegated authority to them to legislate regarding specific interests. The authority of local governments to regulate land use is granted to them under enabling acts adopted by their state legislatures. In the U.S., nearly all 50 states have adopted relatively similar land use planning and zoning enabling laws that delegate the authority to municipalities to regulate private land use.

The legislative authority of municipalities is limited to that delegated by the state. State enabling laws authorize municipal governments to control the use of the land by adopting land use plans and creating zoning districts. Most state legislatures have further enabled localities to regulate land subdivision and site plan development through established planning and zoning commissions and boards. By the middle of the 20th century, planning, zoning, and subdivision and site plan regulation had become the traditional components of the land use system. Then, as the post-World War II building boom occurred, legislatures in many states began to give their local governments authority to adopt more complete, flexible, and diverse land use laws. They have been aided by liberal interpretations of delegated powers by state courts. Using these powers, localities in the U.S. have created two recent and dramatic movements: smart growth and local environmental protection.

States do more than enable localities to act. They encourage, direct, and limit the range of municipal actions in a variety of ways. The federal government, too, exercises a number of influences over states and local governments through its environmental legislation and power to provide funding for transportation, infrastructure, and creative state and local regulations.

In our large and diverse country, generalizations are subject to many exceptions. Still, it is safe to say that in the national legal system, the principal legal influence on private use of the land and its natural resources is that of local governments.



U.S. law and practice emphasize the role of local government in land use control for a number of important reasons. First, it is the historical approach, emanating from the medieval municipal corporation and surviving today, despite many attempts to loosen the local grip. Second, local economic markets and environments differ — they are not easily susceptible to generic statewide and national solutions. Third, local citizens and politicians are intimately familiar with local circumstances and have a great stake in economic success and protecting the quality of community life. Fourth, emphasizing a strong local role organizes state and federal political, legal, and financial energies by giving them a focal point.

Respecting the role of municipalities in land use and environmental regulation reminds policymakers that conditions and interests differ greatly from place to place. It suggests, too, that the legal system must remain open to invention. As Justice Brandeis observed over 70 years ago, “A single courageous state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.” By enabling, encouraging, guiding, and directing local government experimentation in land use matters, the 50 states empower thousands of local partners in society’s perpetual search for the creation of livable, affordable, and environmentally sound communities.

HOW DOES LAND USE CHANGE HAPPEN AT THE LOCAL LEVEL?

In gathering data for *Gaining Ground Information Database*, we asked local officials why they adopted innovative local land use laws. The most frequent response was that they were faced with a crisis and they had no choice but to respond. In other cases, they were encouraged by federal or state grants or directed by state legislation to change their land use rules and standards. In still others, an enlightened group of citizens understood that crises would occur if they did not act in advance of them, and they decided to adapt new laws to their changing circumstances.

In our attempt to better understand this process of change, we studied several theories of change and were particularly impressed by the work of researchers in a field called the Diffusion of Innovation. Their description of local change and its influ-

ences parallels what we have learned in our research and through our experience of working directly with local officials in the land use area. What follows is an elementary outline of our ideas about the adoption of land use innovations and explains why we think the *Information Database* can influence positive change in a time of heightened concern over the use of the land.

Communities – and local governments – are “systems” that adapt to external and internal changes in order to survive and thrive. Among the crises that the local leaders we interviewed reacted to were sprawl and the disappearance of open space or agricultural land; traffic congestion; the lack of affordable housing; and blight, brownfields, and other forms of environmental pollution and injustice that result from demographic change and economic stagnation.



The real hardships and threats created by these land use pressures and changes precipitate local action, always led by individuals who become innovators in the process of adapting to change. These leaders normally reach out for help to a professional, a smart growth or environmental organization, or a state or federal agency. Quite often, they discover an innovative land use law in an adjacent or nearby community through their discussions with local leaders there. In some way, they find a law that resembles the one they are looking for, and then they adapt it to their unique circumstances.



The process of adapting smart growth and environmental protection laws to local circumstances involves the entire apparatus of local land use decision-making, which varies from state to state. Often it requires the input of planning boards, conservation commissions, landowners, citizens at public hearings, and, finally, action by the local legislative body, the elected representatives of the people. For change to happen, for new laws to be adopted, clever and enlightened local leaders must shape and direct the debate and see that the desired local legislative reform occurs. In that process, it is critical that local voters and politically elected leaders know that the proposed change is credible. This is aided by knowledge that similar changes have been adopted in similar places by similar people.

This description of how and why local land use laws are adopted helps to explain why the *Gaining Ground Information Database* is so important. By making available real laws adopted by local governments in all regions of the country, the database greatly enables positive change. Federal, state, and nongovernmental agents can find

and recommend laws that respond to particular circumstances. State agencies that provide model ordinances to their localities and provide funding for planning and innovation can use the sample laws and other resources to prepare their models and direct local action. As important, local planners, professionals, and land use leaders can find such laws directly. All of these agents of change can find additional resources through research links, evaluate sample laws, and analyze what to do locally by reading articles, research papers, and other commentaries. *Gaining Ground Information Database* provides answers to many of the questions that arise in the local process of considering and adopting changes in land use laws: Will it work? Is it practical? Has anyone else tried it? Were their circumstances the same as ours? In short, is this proposal a credible one?

Links to Other Research Resources

WEB SITES ON SMART GROWTH AND LOCAL ENVIRONMENTAL LAW

American Planning Association (APA): <http://www.planning.org/>
Brookings Institution: <http://www.brook.edu/es/urban/urban.htm>
Congress for the New Urbanism: <http://www.cnu.org/>
The Conservation Fund: <http://www.conservationfund.org>
Environmental Law Institute (ELI): <http://www.eli.org/>
International City/County Management Association (ICMA): <http://www2.icma.org/main/sc.asp>
Michigan Land Use Institute: <http://www.mlui.org>
Natural Resources Defense Council (NRDC): <http://www.nrdc.org/>
Smart Growth America: <http://www.smartgrowthamerica.org/>
Smart Growth Network, Smart Growth Online: <http://www.smartgrowth.org/>
Trust for Public Land: <http://www.tpl.org>
U.S. Environmental Protection Agency (EPA): Topics index: <http://www.epa.gov/epa-home/topics.html>.
Smart growth pages: <http://www.epa.gov/ebtpages/envismartgrowth.html>

INTERNET RESEARCH RESOURCES FOR STATE AND LOCAL LAND USE LAW

General Resources

Findlaw: <http://www.findlaw.com>
Library of Congress: <http://www.loc.gov/law/public/law.html>
State and Local Gateway: http://www.firstgov.gov/Government/State_Local.shtml
State and Local Government on the Net: <http://www.statelocalgov.net/index.cfm>
International City/County Management Association (ICMA): Links to local and county government web sites in all states: <http://www2.icma.org/govsites/?hsid=1&ssid1=44&ssid2=211>

Municipal Codes

American Legal Publishing Corporation: <http://www.amlegal.com>

General Code: <http://www.generalcode.com>

LexisNexis Municipal Code Library: www.bpcnet.com (which is also www.ordlink.com)

Municipal Code Corporation: <http://www.municode.com>

County Codes

National Association of Counties: http://www.naco.org/Content/NavigationMenu/About_Counties/Codes_and_Ordinances/Codes_and_Ordinances.htm

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Treatises

Michael B. Gerrard, ed. ENVIRONMENTAL LAW PRACTICE GUIDE (Matthew Bender 2004)

Julian Conrad Juergensmeyer and Thomas E. Roberts, LAND USE PLANNING AND
DEVELOPMENT REGULATION LAW (West 2003)

Daniel R. Mandelker, LAND USE LAW, 5th ed. (Matthew Bender 2003)

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Gaining Ground Information Database: A Report on its Development, Contents, and Intended Use

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Editors' Note. The following report describes how the initial phase of Information Database was developed, and analyzes and illustrates its contents. Ms. Wyman prepared a lengthier version of this material as her Master's Project at the Yale School of Forestry and Environmental Studies. Her report here is supplemented by illustrations of the contents of the database and followed by sample state and local laws. The illustrative material in the shaded text boxes in this section was prepared by Susan Moritz, Research Consultant, Land Use Law Center, Pace University School of Law.

INTRODUCTION

Gaining Ground began as collaboration between faculty and students at the Pace University School of Law and the Yale School of Forestry and Environmental Studies. Law students in Professor John Nolon's fall 2002 Land Use Law course at Pace researched state enabling legislation that authorizes counties and municipalities to enact local environmental and smart growth laws. In the spring of 2003, Professor Nolon's master's students in Local Environmental Law and Land Use Practices at Yale surveyed municipal codes in all fifty states in search of new examples of the most innovative land use laws. They reported on state and regional trends in local environmental law and interviewed local planners and change agents involved in smart growth and conservation efforts.

This research served as the foundation for a comprehensive electronic library of innovative land use ordinances (www.landuse.law.pace.edu). This report discusses the lessons learned from *Gaining Ground* about trends in local environmental law across the U.S. It is hoped that this analysis will provide insight into the laws themselves, how and why they are created, and their importance in the broader realm of growth management and environmental decision-making.

This report also analyzes various factors that contribute to the adoption of innovative land use laws, with an emphasis on understanding why certain municipalities support innovation more than others. It was initially thought that research would reveal distinct geographical trends in innovation. However, the diversity of ordinances in the database heralding from all fifty states makes clear that it is not possible to generalize on a regional scale. This analysis focuses not on ranking states or regions in terms of innovation, but rather breaks apart certain factors that appear to influence the degree to which a particular municipality has adopted innovative environmental and smart growth ordinances, and the type and scope of ordinances adopted.

The amount of development pressure, the level of affluence, the political climate, and the degree of state-level support for growth management all play a role in determining the likelihood that a particular community will adopt innovative local environmental and smart growth laws.

The additional factor of local resource distribution influences the nature of the laws adopted in different parts of the country. Local officials and change agents should consider each of these factors when setting out to promote land use reform and environmental protection at the local level.

Five elements appear to play a role in communities that adopt innovative land use laws. Change may result from the efforts of an innovative local planner, an enlightened and active citizenry, or an outside organization working to effect change. Moreover, change is often motivated by a crisis situation or the mandate of the state or regional government. The process of change in local land use law is most often organic, occurring from the bottom up. However, local leaders and citizens can benefit greatly from the assistance of local and regional organizations that focus on environmental protection and smart growth. These change agent organizations play an important role in providing training to local leaders, offering technical and financial support, and helping spread successful innovations to other grassroots leaders. *Gaining Ground* aims to connect these groups with local officials and citizens to promote the adoption of innovative environmental protection and smart growth laws at the local level.

Gaining Ground makes an exciting contribution to the field of local environmental and land use law. The database will serve as an idea source for local leaders, researchers, citizens, and change agents interested in adopting local laws to achieve environmental protection and smart growth within their communities. By making available a database of innovative land use ordinances searchable by state, region, and topical area, the database will contribute to the creation, diffusion, and adoption of innovative local laws that achieve environmental protection and smart growth. It also serves as a networking resource to connect individuals and groups working to enact change within their communities so that they may collaborate and share ideas. In this way, *Gaining Ground* is designed to increase the rate of the diffusion of innovation in local land use lawmaking.

RESEARCH METHODS

Under the guidance of Professor Nolon, master's students at the Yale School of Forestry and Environmental Studies compiled the bulk of the material for *Gaining Ground* and drafted state and regional reports in the spring of 2003. Students divided into teams to cover different regions of the country using the Environmental Protection Agency's ten regional designations. Each team was responsible for researching innovative laws within its region and reporting on state and regional trends. Students also researched how and why municipalities adopted innovative local laws. An important part of their work involved interviews with local planners, smart-growth organizations, and environmental groups in order to understand how innovation occurs in the field of land use law.

Teams began by surveying their region for examples of innovative local ordinances that protect the environment by regulating land use and directing development away from critical natural areas. Many states and municipalities provide town and city codes online via government web sites or larger databases such as Municode, Amlegal, and General Code.¹ Searching codes online can be a cumbersome task, but many students found this to be the most effective means to locate, compare, and assess ordinances within a state or region. Some narrowed their search by first talking with local officials or conservation groups to find out where innovation was occurring. Others relied on a method of "brute force," scanning as many city and town codes as possible to determine the most innovative laws.

¹ Available: <http://www.municode.com>; <http://www.amlegal.com>; <http://www.generalcode.com>

When sifting through codes online proved overwhelming, or when ordinances simply were not available electronically, students had to rely on more creative research methods. Many began their search with a call to state natural resource agencies, university research centers, local environmental groups, regional conservation commissions, or city and town officials to find out about local conservation and smart growth initiatives. One good lead often opened the door to many more, though in some cases it took a number of unfruitful calls before finding a valuable source. Students also discovered leads by searching the web pages of relevant agencies and organizations and using references from news articles and academic publications.

Once students had identified a list of potential ordinances within their region, they prioritized these by innovation and selected the most innovative from each state for further research. Students interviewed local officials familiar with each of these ordinances to determine how the laws were passed and whether or not they had been effective. Ordinances dubbed a failure by town or city planners due to unpopularity, funding issues, or other problems were cut from the list. Only those laws proven effective at the local level qualified for inclusion in *Gaining Ground*.

As the next step, students contacted environmental and smart growth organizations in each state that had been involved in passing one or more ordinances. These interviews often led to further information about land use campaigns taking place in the region. Students also identified state-level enabling legislation that authorized municipalities to adopt local land use laws in order to determine the extent of local powers in growth management and environmental protection.

Each team incorporated their findings into state and regional reports that outlined the most innovative ordinances, identified local contacts, described state-level planning efforts and enabling legislation, and analyzed how change took place within the region. Reports were hyperlinked for easy access to full-text versions of all state and local laws, relevant references and publications, and contact information for local change agents. In addition, students categorized their ordinances according to a uniform system of topical headings to enable cross-referencing by topic as well as state and region. All of these elements combine to make *Gaining Ground* a powerful tool for researchers, local officials, government agencies, and change agents to discover information, share ideas, and build a network of smart growth practitioners nation-wide.

TRENDS IN LAND USE LAW AT THE LOCAL LEVEL

Our research into land use law at the local level reveals a number of trends with respect to the type and scope of laws adopted across the nation. This section explores what is innovative about the laws compiled in *Gaining Ground*, covering the topics of water, wildlife, trees, open space, energy, transportation, and development as well as regional and comprehensive efforts. It also includes an analysis of various factors that contribute to the adoption of innovative land use laws, with an emphasis on understanding why certain municipalities support innovation more than others.

Innovation in Local Environmental Law

Research for *Gaining Ground* revealed varying levels of innovation in land use law across the U.S. A set of ordinances that can be considered the first generation of local environmental law has become fairly common across the country.² These include basic natural resource laws geared toward wetlands protection, erosion control, floodplain regulation, tree preservation, and farmland protection, motivated by a municipality's desire to protect its water supply, safeguard citizens from natural disasters, beautify the city, and support traditional livelihoods.

Local environmental laws take a number of forms. They include environmental values expressed in local comprehensive plans, zoning districts created to protect watershed areas, environmental standards contained in subdivision and site plan regulations, and stand-alone environmental laws adopted to protect particular natural resources such as ridgelines, wetlands, floodplains, stream banks, existing vegetative cover, and forests. The clear purposes of these laws are to control non-point source pollution and preserve natural resources from the adverse impacts of land development.

— John R. Nolon, *Open Ground: Effective Local Strategies for Protecting Natural Resources* (Environmental Law Institute 2003)

² The notion of thinking about environmental law in terms of “generations” is borrowed from The Next Generation Project at the Yale School of Forestry & Environmental Studies. Marian R. Chertow and Daniel C. Esty, Editors, *Thinking Ecologically: The Next Generation of Environmental Policy* (New Haven: Yale University Press, 1997).

First generation local environmental laws tend to be based primarily on economic and political motivations and achieve environmental goals only incidentally. They often lack the level of regulation and enforcement necessary for successful environmental protection. These laws, while notable in some respects, generally do not fit the definition of “innovative” as understood in the context of this project.

A new generation of local environmental law has emerged that places environmental protection as its primary objective, grounding land use regulations in environmental science and reflecting a growing conservation ethic. Many municipalities have revamped traditional natural resource laws to reflect growing interest in promoting environmental protection and livable communities. Local governments have also developed a new toolbox of innovative ordinances focused on environmental protection and smart growth including environmental overlay zones, wildlife and endangered species protection, open space acquisition funds, water and energy conservation, environmental performance standards, transfer of development rights, regional planning, and comprehensive environmental ordinances that combine a number of these objectives. These ordinances – with environmental values at their core – represent the cutting edge in land use innovation, and are the focus of many of the laws contained in the database.

HIGHLIGHTS OF INNOVATION

This section highlights examples of some of the most innovative laws in the nation in order to demonstrate the breadth and depth of local environmental laws that have been successfully adopted. Laws are broken down into six categories: water, wildlife, trees, energy and transportation, development, and regional planning/comprehensive ordinances. These categories necessarily overlap, but have been designed to demonstrate the breadth of options available to protect a particular resource or multiple resources and to promote smart growth. Many of these can and should serve as model ordinances for municipalities seeking to augment their environmental protection toolbox.

Water

Water is a central concern of municipalities across the country. Providing an adequate water supply, assuring water quality, and preventing property damage and other threats associated with flooding are all basic elements of local planning. Municipalities have developed a variety of ordinances aimed to address these issues.

Water quality issues have been approached in a number of ways. At the most basic level, municipalities seek to reduce the amount of pollutants entering the local water supply by adopting ordinances focused on stormwater management and erosion control. Stormwater management deals with contaminated surface runoff from impervious surfaces such as parking lots and roadways that washes urban pollutants into nearby waterways.

Fort Collins, Colorado

The city of Fort Collins, Colorado has established a utility fee to fund stormwater improvements. The fee is collected from all property owners within the city limits, and is based on factors including lot size and the amount of open space and impervious surface on the property. Proposed developments will not be approved without a construction plan that includes stormwater improvements. Developers are responsible for constructing stormwater facilities for new developments. A developer fee is imposed if the project creates an impervious surface greater than 350 square feet. If a developer creates stormwater improvements of a capacity greater than that needed by the new development, the city will reimburse the developer for those costs.

The Dane County, Wisconsin stormwater management ordinance sets limitations on sedimentation, nutrients, heavy metals, chemicals, petroleum products, and other pollutants found in runoff, and even regulates thermal pollution in an effort to protect cold water ecosystems. A notable ordinance from Lawrence, Kansas approaches the issue differently, regulating individual sources of runoff rather than the pollutants themselves. This ordinance regulates stormwater discharge from private drainage systems, irrigation runoff, commercial uses, and even pet waste. It also requires regular cleaning of paved surfaces to prevent contamination.

EPA Stormwater Phase II*Commentary*

One interesting attempt to encourage localities to adopt environmental legislation is seen in the Phase II Stormwater regulations issued by the federal Environmental Protection Agency (EPA). Stormwater runoff control is crucial to the success of the federal Clean Water Act. It is one of the most serious causes of water pollution in the U.S., exceeding in many locales the contamination caused by sewage and industrial facility discharges. EPA, pursuant to its authority under the Clean Water Act, promulgated regulations establishing its Stormwater Management Program, which regulate municipalities that operate storm sewer systems, as do most U.S. municipalities of any size. These federal regulations require affected municipalities to implement a stormwater management program as a means to control polluted discharges from their stormwater systems: a form of point source regulation.

To ensure that these municipalities meet federal clean water standards, EPA set forth six minimum control measures that municipalities must meet, including programs to address stormwater runoff from construction sites and post-construction land uses. These regulations effectively direct municipalities to adopt

procedures and regulations that affect private sector construction and development and that mitigate nonpoint source pollution. Local governments are required, for example, to adopt erosion and sediment control laws, to establish site plan review procedures for projects that will impact water quality, to inspect construction activities, and to adopt enforcement measures. Localities must adopt laws resulting in improved clarity and reduced sedimentation of local water bodies, and demonstrate increased numbers of sensitive aquatic organisms in their waters. Post-construction runoff controls are also required for development and redevelopment projects. Redevelopment is defined to include any change in the footprint of existing buildings that disturbs greater than one acre of land.

Erosion control ordinances have a similar goal of preventing sedimentation in streams and waterways. They do so by regulating land-disturbing activities such as development and construction. Vestavia, Alabama has adopted an erosion control ordinance that requires compliance with best management practices (BMPs) including removal of construction materials and hazardous substances, preservation of slope gradients, and monitoring of the site by town officials. In order to assure compliance, the plan is secured by a letter of credit or a bond.

Santa Fe, New Mexico

The Santa Fe Terrain and Stormwater Management Ordinance is designed to help capture stormwater and increase its infiltration in order to reduce substantial erosion hazards due to uncontrolled runoff, and to conserve and capture water resources. The ordinance provides for minimum grading standards, soil engineering reports if over 1,000 cubic yards of earth are moved, and the use of BMPs during construction. Standards for minor development call for a minimum volume of water to be contained or infiltrated on site, and for re-vegetation plans to prevent erosion. Standards for major development include measures to maintain the capacity of soil to infiltrate stormwater; maximum slope requirements for building; peak stormwater flow that does not exceed pre-development for certain storm events; and prohibition of stormwater discharge or disturbance of existing irrigation ditches. Master plans and some other development plans have minimum requirements that include designating land that is below the base flood elevation for a 100-year, 24-hour storm as open space. Final development plans and subdivision plat requirements include providing a long-term maintenance schedule for the life of stormwater management measures.

Some municipalities take additional precautions to protect aquifers, well fields, and other drinking water sources from pollution and sedimentation associated with development activities. The people of Austin, Texas rallied for adoption of the Save Our Springs (SOS) ordinance when they discovered that nonpoint source pollution was accumulating in their local aquifer. This ordinance creates special development requirements for lands in the surrounding watershed in order to prevent contamination, and restricts the amount of impervious coverage allowed in the watershed.

San Marcos, Texas

The Edwards Aquifer stretches from Brackettville in south Texas, to Austin, 160 miles to the northeast. The aquifer is composed of karst limestone, and acts rather like an underground river. Its water undergoes very little filtration and is therefore susceptible to pollution. Recognizing its environmental, economic, and recreational importance, the city of San Marcos has updated its land development code to protect the aquifer. The ordinance regulates development over the aquifer in order to protect public health and environmental resources, including endangered species. The ordinance requires, with some exceptions, that every application for development in the recharge or transition zones of the aquifer be accompanied by an aquifer protection plan. It limits impervious coverage on developments in the recharge zone to a certain percentage of the site depending on the acreage of the project. The plan must demonstrate compliance with the regulations set forth in the ordinance. In particular, the ordinance is concerned with streambeds where the karst limestone is exposed and with the recharge portions of the aquifer, which are affected by the creation of impervious coverage. If a development includes more than 15% impervious coverage, the plan for the development must include permanent best management practices (BMPs), outlined in detail in the ordinance. The ordinance also offers clustering incentives, transfer of development rights, and parkland credits to encourage development outside the sensitive recharge features, water quality zones, and buffer zones.

Similarly, the city of Dayton, Ohio adopted a Well Field Protection Program that allows zoning of a well field overlay district and a wellhead operation district, where land use is restricted to non-polluting activities such as parks and playgrounds. This effort is coupled with a Water Department ordinance that provides incentives for property owners to reduce chemical release.

Wallingford, Connecticut

The town of Wallingford's zoning regulations contain two overlay districts that protect hydrological features of the local environment: an Aquifer Protection District and a Watershed Protection District. The regulations state that the Aquifer Protection District "shall be superimposed over the primary and secondary recharge areas of the Quinnipiac River Aquifer and the Muddy River Aquifer and all regulations, requirements, and controls of this section shall be in addition to the standard regulations of the underlying zoning district." The Watershed Protection District provisions state that its purpose is "to provide for additional standards for permitted uses of the underlying district in order to protect and maintain the surface waters of the Wallingford Public Water Supply Watershed to a quality consistent with its use as a primary drinking water source for the Town."

Westport, Connecticut

Westport has enacted a tree-spraying ordinance designed to protect water quality in the town's lakes and ponds from biochemical contamination. It regulates water use and the equipment and vehicles used for the spraying of pesticides and other chemicals on vegetation, so as to prevent flushing and direct contamination of the town's waters during water intake by vehicles. The ordinance requires a permit, fee, and inspection of equipment used in tree spraying.

Moving beyond water quality, cities and towns in different parts of the country have various concerns about water *quantity*. In low-lying areas along major rivers and in coastal areas, flooding causes major concerns for property and human safety. Many municipalities seek to restrict development in floodplain areas in order to prevent property damage and loss of life in the event of a catastrophic flood. Moreover, inappropriate development in floodplains can exacerbate water quality problems by increasing runoff and altering natural drainage patterns. The city of St. Louis, Missouri, located on the Mississippi River, scientifically delineates floodplain areas and regulates development in order to prevent damage. A permit is required to build in any floodplain area, pending approval by the city.

By contrast, municipalities in more arid parts of the country often suffer from a shortage of available water for municipal use, agriculture, and commercial needs. Cities and towns in the desert Southwest seek to promote water conservation by various means. Albuquerque, New Mexico passed a Long Term Water Conservation Strategy regulating water use and promoting xeriscape landscape techniques, which require the use of drought-resistant native plants. The city of Santa Fe, New Mexico encourages the re-use of "gray water" from sinks and showers for use in watering lawns. Las Vegas, Nevada has passed a Turf Limitation ordinance that reduces irriga-

tion requirements by limiting the amount of a parcel that can be planted in turf. As in Albuquerque, much of the landscaping should include water efficient vegetation. These laws are in fact popular with developers because they save them money on landscaping. Various laws also set specific limitations on water use for irrigation and lawns.

Las Vegas, Nevada

The city of Las Vegas has attempted to conserve and protect its water resources by adding provisions for turf limits to its landscaping code. The code restricts areas that may be covered with turf in order to reduce irrigation requirements in the Nevada desert. Depending on the type of development that is proposed, turf limitations range from 25% to 50% of a parcel's capable land. The remaining cover is to be water-efficient landscaping. All irrigation water must be retained on-site. When required, swales must channel water to larger holding areas, catch basins, other planting areas, gravel sumps and/or dry-wells. Compliance with turf limits is included in the planning and permitting process as one of the routine checks conducted during plan review.

Arizona, Utah, and other drought-prone states have passed similar ordinances to conserve water for essential municipal uses. The city of Yelm, Washington has taken water conservation one step further by achieving 100 percent reuse of its municipal wastewater through a unique wastewater ordinance that helps lower demand on potable drinking water supplies as well as reduce pollution in nearby waterways.

Although concerns over water quality and quantity tend to focus on human needs first, it is important not to overlook the needs of aquatic and wetland ecosystems for a stable supply of clean water. Across the nation municipalities are beginning to understand the ecological needs of aquatic systems and recognize the many free resources and services they provide – including flood control, water filtration, recreation, and biological diversity. Wetland protection ordinances are one of the most common types of natural resource ordinances found in the U.S. Many municipalities regulate development in and around wetland areas in order to reduce the threat of flooding in conjunction with floodplain ordinances discussed above.

However, a new breed of wetland ordinance has emerged that recognizes the biological value and ecological services offered by wetlands as well. The barrier island community of Sanibel, Florida has created an Interior Wetlands Conservation District in order to strictly limit development in designated wetland areas. Development standards in this zone limit the type and scope of development and set requirements for setback distances and the limitations on dredging and filling. All proposed development is subject to a permitting process that requires a detailed land development plan outlining the proposed alterations; site topography, vegetation, and wildlife habitat; a re-vegetation plan; a stormwater management plan; and engineering studies regarding the potential impacts of the development on hydrology and flood control.

Sawyer County, Wisconsin

In Sawyer County, Wisconsin, the Wetland/Shoreland Zoning District includes all wetlands of five acres or more. Where a wetland as a whole is five acres or larger but extends across municipal or county boundaries, a part of the wetland that is less than five acres and is located in an unincorporated area is included in the district. The district's purpose is to "maintain safe and healthful conditions, to prevent water pollution, to protect fish spawning grounds and wildlife habitat, to preserve shore cover and natural beauty and to control building and development in wetlands whenever possible." When development is permitted, it must occur in a manner that minimizes any adverse impacts on the wetlands. Some of the permitted uses in this district include fishing, hunting, trapping, and the harvesting of wild crops, such as marsh hay, ferns, moss, wild rice, berries, tree fruits, and tree seeds.

Shoreline or riparian protection is another concern for all aquatic habitats including wetlands as well as lakes, streams, and other water bodies. Preserving vegetative buffers along the shoreline of waterways helps filter contaminated runoff entering the water body and also provides critical habitat for aquatic birds and other riparian species. The city of Missoula, Montana created an Areas of Riparian Resource ordinance requiring developers to submit a Riparian Management Plan if their property contains aquatic habitat. The plan must detail how the riparian area will be protected. The city then determines an ecologically-based setback requirement based on topography, wildlife, vegetation, aquatic life, and other ecological parameters; development is prohibited within this designated buffer zone.

Gloucester, Massachusetts

The City of Gloucester, Massachusetts adopted a General Wetlands Ordinance to control activities deemed to have a significant effect individually or cumulatively upon the following interests: public or private water supply, flood control, protection of land containing shellfish, protection of fisheries, and protection of wildlife habitat. The areas this article protects include: Any bank, the ocean, any coastal wetland, creek, beach, lake, or marsh, land subject to tidal action, flooding, land extending 100 feet horizontally outward from land considered and Area of Critical Environmental Concern (ACEC). These regulations pertain to any activity proposed or undertaken within 100 feet horizontally outward from the boundary of any Resource Area and within 200 feet horizontally outward from the Upland Edge (the boundary of the ACEC). The Gloucester Conservation Commission has jurisdiction that extends 300 feet horizontally outward from the ACEC itself: a 100 foot resource area (Upland Edge) and another 200 foot Buffer Zone.

Napa County, California has adopted a similar stream setback ordinance which establishes a biologically-based stream classification system and sets designated buffer areas based on this classification. Developers must adopt site-specific Water Conservation Plans to protect and restore streams on or adjacent to the property. Although these ecologically-inspired ordinances for aquatic protection are more rare than those oriented toward human health and safety, they are beginning to become an important part of municipalities' efforts to deal with water-related issues.

Wildlife

Like ordinances geared toward aquatic habitat protection, local wildlife protection laws nationwide are largely based on ecological concerns for other species. Ordinances that aim to protect endangered species, prevent invasive exotic organisms, and promote habitat protection have emerged across the country, in many cases as an effort to complement state or federal wildlife protection efforts. Endangered species are a concern for many of the municipalities in which they reside. The town of Scarborough, Maine has adopted a Piping Plover Protection ordinance pursuant to the Maine Endangered Species Act. This law identifies the bird's nesting sites and marks a setback area to minimize disturbances. Dogs must be leashed during breeding season, and any violations are subject to fines. Similarly, the Isle of Palms, South Carolina created a Sea Turtle Protection ordinance designed to protect the species during mating season by regulating the use of outdoor lighting on sea turtle nesting beaches. Artificial lights have been known to misguide turtle hatchlings away from the ocean, limiting their chance of survival.

In other areas, keeping harmful invasive species out of sensitive ecosystems is just as important as protecting native species. The town of Washington, Connecticut has passed the Lake Waramaug Boat Inspection ordinance to prevent non-native aquatic plant and animal species from entering the lake. Rigorous inspection and cleaning of all boats is required before entry at the boat ramp, and fines are issued for violations. As a result of this law, the lake is still clean.

Franklin County, Ohio

The Big and Little Darby Creeks Critical Resource Protection District was established by Franklin County, Ohio to preserve the habitat of what the ordinance calls "an extraordinary array of wildlife: 86 species of fish (12 of which are rare or endangered), 40 of freshwater mussels (12 of these are rare or endangered), 176 of birds, 34 of mammals, and 31 of reptiles and amphibians," along with a dozen rare plant species. The district extends 120 feet from and parallel to the ordinary high water mark along the creek banks in Brown and Pleasant Townships. Passive recreational uses are allowed in the district, as well as some timber harvesting and agriculture. No construction or paving is permitted. Water contamination and dredging and filling are also prohibited. Natural vegetation, with the exception of noxious weeds, must remain undisturbed.

Other wildlife protection ordinances focus on habitat conservation in order to protect multiple species. A wildlife ordinance in Larimer County, Colorado requires the planning director to review all development proposals for their potential impact on wildlife habitat. The Division of Wildlife then determines whether a Wildlife Conservation Plan is required. Plans must include measures to reduce the impact on wildlife, and they may also require the following: a 100 foot setback from habitat areas; the use of native species in landscaping; and regulation of refuse disposal, fence construction, domestic animal use, and exterior lighting.

The Natural Habitat and Features ordinance of Fort Collins, Colorado also takes a broad approach to habitat protection, focusing on aquatic, wetland, grassland, shrubland, and forest habitats as well as habitat of endangered species and other wildlife. The developer must provide the city with an ecological evaluation of the site completed by a professional that describes the wildlife, wetlands, views, native vegetation, water bodies, wildlife corridors, and ecological functions, and suggests measures necessary to mitigate the impact of the development. Buffers areas are then established surrounding these natural habitats or features in which development is prohibited. Developers also must reduce the visual impact of their development and incorporate other aesthetic considerations.

Iowa City, Iowa

Iowa's Department of Natural Resources has made wetlands preservation and restoration a primary land use objective in order to restore native wildlife populations. Through the draining of land for agriculture and other development, Iowa has lost nearly 90% of its original wetlands. The Sensitive Areas Ordinance of Iowa City, Iowa, includes wetlands protection in part to promote "the preservation of habitat for plants, fish, reptiles, amphibians, and/or other wildlife." The ordinance designates certain "critical or outstanding" wetland habitats as no build areas, sets out detailed standards for compensatory mitigation for any permitted disturbance to other wetland habitats, and requires monitoring of the condition of any new or enhanced wetland for five years.

Another approach to habitat protection involves the use of overlay zoning in lieu of case-by-case protection. The Natural Resource Overlay District of Teton County, Wyoming is designed to protect species with biological, ecological, economic, educational, and aesthetic values, including elk, mule deer, moose, bald eagles, trumpeter swans, and cutthroat trout. The ordinance seeks to protect critical habitat by keeping development out of this overlay zone. Developers proposing projects within these districts must submit an environmental analysis including a habitat inventory and development impact assessment. Development is altogether prohibited in elk, moose, and mule deer habitat and migration routes; within 150 feet of cutthroat trout spawning areas; within 300 feet of trumpeter swan nests; and within 400 meters of bald eagle nests. A similar ordinance has been passed in Blaine County, Idaho and other

parts of the West. Other resource protection ordinances are found throughout the country, focused on habitats and species specific to each region. The focus is on creating protected zones and buffer areas where development is restricted in the interest of habitat protection.

St. Cloud, Minnesota

St. Cloud is part of a rapidly growing region north of Minneapolis-St. Paul. Through a process of inter-municipal planning and community visioning it has adopted an updated comprehensive plan to manage growth. The city's Environmentally Sensitive Areas (ESA) ordinance gives first priority to the preservation of "rare species, riparian and wildlife corridors and complexes" within an ESA. Development Guidelines include the maintenance of wildlife and riparian corridors; ensuring that undeveloped ESAs and their buffer areas are large enough to be sustainable and to prevent fragmentation; and minimizing construction impacts on ESAs. Appendices describe environmentally sensitive resources, the rationale for their protection, and best management practices for their preservation. The ordinance emphasizes scientific analysis of natural communities, and sets out ecological interrelationships among Native Prairies, Forests and Woodlands, Sensitive Geological and Hydrological Features, Rare Species Sites, Riparian Corridors, Wetlands, and Wildlife Corridors. Incentives offered by the ordinance include reduced sidewalk, street, and setback requirements; the donation of an ESA or its protection through a conservation easement in lieu of park dedication; increased density allowances; and clustering of development outside the ESA.

Limington, Maine

Limington, Maine includes an Endangered Species and Critical Areas Overlay in its zoning ordinance to protect plants, fish, and animals in areas identified by the state as habitat for endangered species and for certain waterfowl, wading birds, and shorebirds, as spawning areas for Atlantic salmon, and as deer wintering areas. Except for non-intensive recreational uses, new structures and uses within the overlay require a conditional use permit. A report by a wildlife biologist on the probable effects of the proposed use on habitat and species may be required with as part of the permit application.

Trees

Trees and forests are another important resource for many municipalities. In urban areas, local governments work to protect large and distinctive trees that offer habitat for urban wildlife, provide shade, and promote the scenic character of the city. Tree ordinances abound in all parts of the country. Washington, D.C. passed the Urban Forest Preservation Act in 2002 in response to rapid loss of the city's old and stately trees. This law requires permits for the removal of trees greater than 55 inches in circumference, and if a permit to remove is granted, the landowner must either replant or pay a fee to a tree planting fund. The city of Olympia, Washington has a similar protection and replacement program for landmark trees as part of its Urban Forest Management Plan. Some suburban communities have also adopted ordinances to protect forests and regulate timber harvesting, recognizing the importance of forest cover to provide wildlife habitat and prevent soil erosion. A concerned town planner in Pawling, New York created a Timber Harvesting ordinance in an effort to protect water quality by reducing soil erosion and sedimentation from timber operations. The law sets standards for timber harvesting including restrictions on slope steepness, distance from streams, and use of logging roads. It is enforced through a permitting process and frequent inspections by the town planner. These laws all recognize the importance of trees as part of the urban and suburban ecosystem.

Marin County, California includes extensive timber harvesting regulations in the Natural Resources title of its county code. The regulations are enacted to prevent "serious public injury consisting of, but not limited to," soil erosion, siltation, and instability, water and air pollution, destruction or deterioration of roads, and "[c]hange of the environment which is detrimental to the public health, safety and general welfare." The regulations contain permit and fee requirements, logging practice standards and requirements, erosion control measures, and enforcement provisions.

Atascadero, California assigns native trees a separate chapter of its zoning code. On public and private property within the city, a permit is required for the removal of native oaks, sycamores, madrones, and other protected species.

Tiburon, California has identified a category of "protected trees," which includes native oaks, and also a category of "undesirable trees," which includes Monterey cypress, coast redwoods, and other species that grow more than three feet a year or reach over 35 feet at maturity. The Tiburon code explicitly establishes "the right of persons to preserve views or sunlight which existed at any time since they purchased or occupied a property from unreasonable obstruction by the growth of trees."

Open Space

The protection of open space is of great concern to communities across the U.S. that have begun to feel the pressure of urban sprawl. Municipalities have made efforts to preserve undeveloped land, protect working farmland, and create urban and suburban greenways and wildlife corridors in order to retain their character and scenic appeal. One of the most effective means of preserving land is through open space bonds. Residents of Missoula, Montana have preserved over 3,000 acres of land in the past 20 years by approving bond measures paid for through property taxes. Similarly, the resort community of Park City, Utah has approved two separate bonds for \$10 million each in order to protect open space through land acquisition.

However, it is not always necessary to purchase land outright for preservation. Many communities want to preserve working agricultural land for its values for open space, wildlife habitat, and local character. In Teton County, Wyoming an agricultural preservation ordinance helps farmers by allowing them to pay taxes according to the current value of the land, not its highest potential use value. It also creates a rural district zoned at a very low density to discourage residential development and attract farmers. Other so-called “Right-to-Farm” ordinances across the country protect farmers from nuisance claims of any nearby development, serving to prevent developers from building on nearby lands. Agricultural lands make up a valuable component of open space preservation in many communities.

Guilford, Connecticut

From the Town of Guilford Plan for Open Space and Municipal Land Use Needs (1999)

Open Space Goals

Preserve resources along the scenic corridors of Guilford by retaining the scenic qualities of specific areas within the town, which have been recognized as having town-wide importance.

Preserve the “Gateways” to Guilford. These places create a first impression of our town and should receive special attention. Examples of Gateways are the I-95 exits, Route 1 and Route 80 at the Branford and Madison borders, Route 77 at the Durham border, and the Route 80 junction with Route 77.

Foster the conservation and preservation of the important natural and scenic resources of Guilford in any manner beneficial to the future needs of Guilford. Natural resources of the town to be preserved include water resources, ridgetops, marshlands, open fields, meadows, and areas of unique scenic or historical significance.

Protect cultural landscape features: Encourage protection of stonewalls, tree canopies on town streets, open fields, mature trees, and other important features, as they are important ecologically and culturally to the Town of Guilford.

Protect shoreline views: Protect coastal views from public roads of marshes, beach shoreline or open water for public enjoyment.

Strategies for Open Space Conservation

Land acquisition is only one of several facets of open space planning. Certainly a goal of increasing the acreage of open space, particularly Class A lands owned by our town, as well as careful stewardship of those lands already acquired, will go a long way to insure the future health and well being of the citizens of Guilford. But we must increase the overall abundance of Class A and Class B lands by:

Giving priority evaluation to contiguous large tracts of land with connecting corridors as they have been shown to be critical for the maintenance of biological integrity, biodiversity, sustainability, and resiliency of the land. Of particular interest, is undeveloped land with habitats that are becoming increasingly scarce regionally, such as large meadows.

Prioritizing water access sites. Give priority to acquisition of water areas for public access to water bodies, rivers, ponds, lakes, and coastal waters for fishing, boat launching, and passive recreation.

Promoting payment in lieu of open space set-asides in subdivisions where open space is not a critical issue. The set-aside would be earmarked for open space (Class A and B) acquisition.

Favoring open space land acquisition that includes or is adjacent to any wetland system in Guilford. These major wetland areas identified by the Guilford Inland Wetlands Commission and the Guilford Conservation Commission merit special attention. Properties being considered for purchase that contain or border on them should be given priority.

Investigating areas that provide potential for active and passive recreation: Look for areas that would provide the potential for active and passive recreation. Development of multi-use fields, neighborhood parks, hiking trails, and access for water-related activities are needed to meet the growing recreational needs of the citizens of Guilford. Priority should be given to sites north of Route 80. Playing fields are needed in North Guilford. A multi-use park is specifically needed in the Podunk Road area. Appropriate sites, with economical access to

necessary utilities, should be considered for potential development of indoor recreational facilities, such as an ice rink, swimming facility, and/or arts center.

Prioritizing open space linkages to bordering Town's Greenways.

Prioritizing preservation/protection/acquisition of those natural areas designated by the State of Connecticut Department of Environmental Protection "Natural Diversity Database Map" for the Town of Guilford.

Prioritizing riparian corridor preservation and protection to foster preservation of water quality, for wildlife, and for passive recreation and fishing where appropriate.

Adopting "conservation overlay zones" as a zoning category to insure against changes of use of designated municipal open space land and private organization open space land.

Assisting landowners in maintaining private open space so that it contributes to a diverse and healthy natural environment and furthers our open space goals.

Purchasing easements or development rights can be an effective way of furthering open space goals without the outright purchase of land.

Strengthening land use regulations to assure that when development does occur, it is done in an environmentally sensitive manner and contributes to open space goals.

Working closely with the Guilford Land Conservation Trust and other non-profits to develop creative approaches to land use that will contribute to our open space goals.

In urban areas, greenways and greenbelts are popular ways to protect open space. These are vegetated areas often connected by trails that may follow riverbeds, former railroad tracks, or other natural and man-made corridors. Greenways achieve the multiple objectives of providing recreational opportunities, protecting and restoring natural habitats, providing educational opportunities, enhancing aesthetic values, and promoting alternative transportation through the provision of bike paths and walkways. The city of Santa Rosa, California succeeded in transforming a degraded urban creek into a vegetated greenway corridor that provides outdoor recreation opportunities to residents while restoring aquatic and riparian habitat.

Greenways are unique in that they serve to connect other parks, forests, and open spaces and can even serve as migration corridors for wildlife. Many American cities

have successfully embarked on greenway projects. These programs do not always manifest themselves in the municipal code, but they are an important component of urban and suburban open space preservation.

Energy and Transportation

Given that most natural resource ordinances focus on the themes of water quality, habitat protection, tree preservation, and open space, it was somewhat surprising to discover a number of local laws geared towards energy conservation, renewable energy, and alternative transportation planning. Local governments are beginning to understand the finite nature of the world's energy resources and recognize the problem of air pollution created by fossil fuel combustion.

The city of Chicago, Illinois has sought to promote energy conservation through its Green Roofs program, which requires new buildings to meet "reflectance" standards by planting urban rooftops with live vegetation. This has been proven to reduce the urban heat island effect and promote energy efficiency. Other communities such as Taos, New Mexico and Ketchum and Hailey, Idaho have adopted Night Sky Protection ordinances to reduce the use of outdoor lighting at night. Lights are required to shine downward in order to protect the view of the night sky and conserve energy.

Santa Cruz County, California

Santa Cruz County, California has adopted an expansive Environmental and Resource Protection chapter as part of its county code. Recognizing that local action can help "to reverse the patterns of activity which are destroying the environment on a global basis," the county adopted a section entitled "Environmental Principles and Policies to Guide County Government," which establishes general policies regarding offshore oil drilling; global warming and renewable energy resources; protection of the ozone layer; forest protection and restoration; green-belt protection and preservation; recycling; toxic and radioactive materials; endangered species and biodiversity; development of a sustainable local economy; future growth and development; transportation; and education and outreach. The Environmental and Resource Protection chapter specifically regulates geologic hazards; grading; erosion; water quality; riparian corridors and wetlands; sensitive habitat; significant trees; native American cultural sites; historic preservation; paleontological resources; agricultural land preservation; timber harvesting; mining; and offshore facilities supporting oil and gas exploration.

Some municipalities are also promoting the use of renewable energy sources such as solar and wind power. The town of Yellow Springs, Ohio has adopted a Renewable Energy ordinance that allows residents and commercial users to offset their electrical costs by generating electricity via solar and/or wind power. Residents of San

Francisco, California recently passed a \$100 million bond initiative to fund solar panels, wind turbines, and energy efficiency measures for public buildings. This program will pay for itself at no cost to taxpayers; the bond will be paid off with funds that would have otherwise been used to purchase electricity from power plants.

Iola, Kansas has passed a surprisingly innovative Solar Access ordinance that establishes “solar skyline easements” in order to prevent new development from limiting available light. This ordinance also recommends that residential streets should have an east-west alignment in order to maximize the use of passive and active solar energy and promote energy conservation. Similar ordinances establishing rights to solar energy have been adopted in Ashland, Oregon and parts of New Mexico. It is likely that more communities will begin to consider promoting renewable energy sources as fuel costs rise, blackouts recur, and global climate change becomes a more imminent concern.

Connecticut General Statutes, Sec. 8-2

The State of Connecticut has included in its zoning enabling legislation the authority to encourage the use of renewable energy sources: Such regulations may also encourage energy-efficient patterns of development, the use of solar and other renewable forms of energy, and energy conservation. The regulations may also provide for incentives for developers who use passive solar energy techniques, as defined in subsection (b) of section 8-25, in planning a residential subdivision development. The incentives may include, but not be limited to, cluster development, higher density development and performance standards for roads, sidewalks and underground facilities in the subdivision.

Another means of approaching energy conservation involves the promotion of transportation planning and alternative transportation such as public buses, commuter rails, and bike paths, along with creating more walkable communities. A transportation planning program in Warren, New Jersey requires developers to pay an impact fee based on the increased demands a new development will put on existing transportation infrastructure. This fee is designed to discourage costly sprawl that will result in more commuters and heavier traffic. Lenexa, Kansas has adopted a similar Transportation Improvement Program based on impact fees. Moreover, the city has adopted Pedestrian Oriented Design Standards in its code in order to make the community more walkable by providing adequate sidewalks, crosswalks, and footpaths. This is an important step toward encouraging people to walk rather than drive for shorter trips. In Utah, the increasingly congested Salt Lake County has instituted a .25 percent Sales Tax for Public Transport in order to finance construction of a commuter rail, in conjunction with the Utah Transit Authority’s long term planning goals. All of these efforts help save energy by reducing the number of individual vehicle trips and promoting alternative transportation.

Minnesota: State and Federal Transportation Planning

The Intermodal Surface Transportation Equity Act (ISTEA), reauthorized as the Transportation Equity Act for the 21st Century (TEA-2), requires states and regions to undertake comprehensive transportation planning that includes environmental protection and community quality as its goals. With significant citizen participation, the Minnesota Department of Transportation initiated a Strategic Management Process in 1992 to develop collaborative approaches to implementing ISTEA. The agency's Area-wide Transportation Partnerships encouraged regional cooperation in transportation planning. In 1999, the agency established an Interregional Corridor System, and it has adopted "smart growth principles," the first of which is to integrate "environmental, land use, access, and transportation planning decisions along transportation corridors."

Smart Growth

Most of the ordinances discussed above have focused directly on conserving natural resources. This next section of innovative local laws deals with a variety of indirect but essential means to protect natural resources and the environment by keeping development out of sensitive areas, mitigating the impacts of development on the environment, and encouraging redevelopment in urban cores while discouraging urban sprawl. This is perhaps the broadest category, as communities have developed a wide variety of strategies to promote sustainable development and smart growth. Most of these laws have become fairly common across the country, especially in urban and suburban areas where development pressure is high.

Preserving open land is part of an overall community development and conservation strategy. Experience proves that when community leaders develop a balanced strategy for development and conservation – or smart growth – both objectives are more easily achieved. Sprawl and its negative side effects cannot be prevented simply by acquiring and regulating land; an effective approach to concentrating market pressures for development in appropriate places is required.

– John R. Nolon, *Open Ground: Effective Local Strategies for Protecting Natural Resources* (Environmental Law Institute 2003)

In order to discourage development at the urban fringe and prevent sprawl, Fayetteville, Georgia requires developers to pay impact fees in proportion to the development's impact on infrastructure and the environment. Although initially the \$300,000 in annual funds generated by the impact fees were used to make infrastructure improvements, they are now put towards land acquisition in environmentally sensitive areas. This ordinance has been very successful in discouraging inappropriate development and compensating for fringe development with open space acquisition.

Eugene, Oregon

The city of Eugene enacted its nodal development overlay zone ordinance in October 2002. The ordinance is intended to encourage high-density mixed-use development in areas that are well served by transit and to provide for diverse land uses and opportunities for pedestrian access. The essential characteristics of a node, as defined by the city, include: pedestrian-friendly environments, a transit stop within $\frac{1}{4}$ of a mile of any place in the area, mixed land uses, public spaces, mixed housing, and an overall residential density of at least 12 units/acre. Many of the nodal development areas are located in previously developed land, and therefore present opportunities for infill.

Another effective means of keeping development out of environmentally sensitive areas is through the transfer of development rights (TDR). An innovative program in Suffolk County, New York seeks to protect the drinking water supply of the core Central Pine Barrens District by redirecting development to a high-density growth area outside. Land owners in a core sending area receive development rights credits that they can sell to developers in the outer receiving area. The county has created a regional commission and comprehensive land use plan for the area, and has augmented their efforts by adopting environmental performance standards and other mechanisms. TDR programs are quite common throughout the country in order to keep development and sprawl out of sensitive areas and redirect it to established urban zones.

Brookhaven, New York

The Pine Barrens region of central Long Island is a fragile ecosystem protected by state law in one of the most densely populated areas of New York. The town of Brookhaven has adopted development standards and a program of transfer of development rights to protect the natural resources of the Pine Barrens within its jurisdiction. The Brookhaven ordinance implements the goals of the Central Pine Barrens Comprehensive Land Use Plan and the state's Environmental Conservation Law. It expressly supersedes any conflicting provisions of the state's Town Law. A goal of the Central Pine Barrens Plan is to preserve "the functional integrity of the Pine Barrens ecosystem" and its "significant natural resources, including plant and animal communities." A Core Preservation area is to be maintained "in a natural state." A Compatible Growth Area preserves "the essential character of the existing Pine Barrens environment" while allowing "appropriate growth consistent with the natural resource goals of the Plan." The uses permitted in the Compatible Growth Area are those of the underlying zoning classifications. Under the town's transfer of development rights program, development is prohibited in the Core Preservation Area, while development credits

allow compatible development in receiving districts of non-Core areas. The ordinance creates Residential Overlay Districts and Planned Development Districts and encourages the use of clustering and zoning incentives to promote appropriate development.

Dover, New Hampshire

The Dover Transfer of Development Rights Ordinance is intended to preserve natural resources by directing development to appropriate areas and leaving areas of high conservation value undisturbed. The ordinance was first enacted in 1990 and only included industrial areas. In 2003, it was expanded to establish sending and receiving zones for residential areas as well. The text of the ordinance can be found in the Sample Local and State Laws section of this report.

Windsor, Connecticut

Windsor, Connecticut adopted a TDR program that does not identify a specific sending area. Instead, interested property owners propose a transfer of development rights, and the town planning commission determines whether to grant the transfer. Transfers are granted if the commission finds that it would be more desirable to develop these units at the receiving site than at the sending site. Notably, once the transfer is approved, the resulting open space must be dedicated to the town. The program dictates maximum limits on the density of development on receiving sites.

Encouraging development in higher-density urban areas requires the right incentives and good planning. The city of Orlando, Florida attracts development downtown and reduces sprawl on the urban fringe by offering density and intensity bonuses for development in office, mixed-use corridor, and activity center districts. Developments are required to connect to public transit and to enhance bicycle and pedestrian accessibility. The law also includes a transportation linkage incentive that reduces the minimum required intensity in exchange for contributions to an alternative transportation fund.

Another proactive approach to encourage downtown development and revitalization is through Traditional Neighborhood Development (TND) plans. Columbus, Ohio has adopted a TND that encourages “transit-supportive mixed-use neighborhoods that foster pedestrian activity and a sense of community.” The ordinance

defines “neighborhood” as a place with a one half mile walking distance from center to edge. The plan creates four zones within the neighborhood: a town center, neighborhood center, neighborhood general, and neighborhood edge. The city of Columbus currently has over 1,200 acres in TND.

River Falls, Wisconsin

In 1999, the state of Wisconsin adopted the Smart Growth for Wisconsin Act, which directs every city to enact a comprehensive smart growth plan by 2010. Each plan must incorporate specific smart growth elements, including agricultural, natural resource, intergovernmental cooperation, and land use plan elements. Traditional neighborhood developments, or TNDs, are encouraged. The TND ordinance adopted by the City of River Falls, Wisconsin, exemplifies a local government's successful implementation of this state smart growth initiative. The text of the ordinance can be found in the Sample Local and State Laws section of this report.

Regardless of where development is located, there are additional measures that developers can take to reduce its impact on the landscape. One method that has become very popular across the country is cluster development, which clusters homes close together on their building lots in order to preserve a large, contiguous area of undeveloped land spanning all of the properties. The town of Readington, New Jersey adopted a Mandatory Clustering ordinance and an Agricultural Residential Zone in order to preserve open space and farmland. Any land adjacent to deed restricted farmland or open space must develop the land as 1.5 acre open space clusters, and a minimum of 70 percent of the land must be set aside as open space. The township has preserved over 6,500 acres of land as a result of this law.

Mapleton, Utah

The Critical Environmental Zone program in Mapleton, Utah includes an allowance for clustering as well as provisions that protect ridgelines and wildlife habitat. The Critical Environmental Zone overlay includes areas with steep slopes, flood hazards fragile soils, or wildfire hazards. The allowed density within the Critical Environmental Zone is one single family dwelling per three acres of buildable area and one lot per twenty acres of non-buildable area. With the recommendation of the planning commission and the approval of the city council, a developer may reduce lot size requirements and cluster the dwellings on one acre lots. Clustering is approved based on the following conditions: 1) ridgeline protection is enhanced, 2) the risk of environmental hazards is not increased or is reduced and 3) the cost of infrastructure to the city is reduced. If clustering is approved, the right to the ownership and maintenance of open space in the site plan is reserved for the city or a non-profit organization.

Many other incentives can also be used to achieve better land use. The Entry Corridor and View Protection ordinance of Gallatin County, Montana aims to limit the visual impact of development on important scenic roadways and views leading into the county. It includes setback regulations for a specified distance from the roadway and requires the use of native vegetation to conceal buildings. In addition, parking areas must be located to the side or rear of the building, not in front.

Ashland, Oregon offers incentive zoning, allowing developers to earn density bonuses in exchange for using energy-efficient designs, blending development with natural landscape features, demonstrating more efficient land use, and minimizing development's impact on the area. Similarly, the Community Unit Plan of Lancaster County, Nebraska designates impact fees for developers as well as density bonuses of up to 20 percent for environmentally-oriented development decisions such as energy conservation, protection of environmentally sensitive lands, and agricultural preservation.

Another category of development ordinances has been used to effectively reduce the impact of construction activities on nearby ecosystems. The land development regulations of Ann Arbor, Michigan focus on identifying, evaluating, protecting, and mitigating sensitive environmental areas such as endangered species habitat, floodplains, woodlands, landmark trees, steep slopes, wetlands, and watercourses. Grandview, Missouri has adopted a set of scientifically-based subdivision regulations that prohibit subdivision on sensitive lands, require ecological evaluation of a site prior to permitting, and require that all developers set aside a specific percentage of the property as open space or pay a fee. Ordinances like these have been adopted in a variety of municipalities to ensure that development is carried out in an environmentally-sensitive manner.

Ann Arbor, Michigan

Natural Features provisions are incorporated in Ann Arbor's Subdivision and Land Use Control ordinance. The city's most comprehensive ecological analysis is found in the Guidelines for the Protection and Mitigation of Natural Features, which are included as an appendix to the Land Development Regulations. The Guidelines do not establish mandatory protections, but provide a comprehensive basis for planning and review of development decisions and establish an ecological framework for the city's growth. The Guidelines are meant "to assist petitioners, reviewers, decision makers, and the general public in understanding how natural features may be identified, evaluated, protected, and mitigated" in the development review process. The Guidelines examine the ecological functions of natural features, the city's standards for identification of resources, and its priorities for protection. The ecological history of the resources is discussed. Throughout this scientific, historical, and practical analysis, the Guidelines emphasize the preservation of ecosystem functions and of large interrelated resource areas.

It is not enough to focus on the effects of individual developments. Environmental protection and smart growth are most effective when they occur as part of a wider growth management scheme involving planning at the state, county, and local level. Boulder County, Colorado and the City of Boulder have adopted a growth management system to set strict limits as to the pace and scope of growth. Boulder created an urban service boundary as early as 1959, and in 1967 the county set residential growth limits, currently capped at one percent growth annually. Boulder is also trying to limit commercial and industrial growth to reduce the number of commuters traveling to the city to work. Aspen, Colorado has adopted a similar growth management quota system that designates a maximum annual growth rate of two percent and prohibits growth in excess of 30,000 residents. Growth management regulations such as these help ensure that an area does not grow too rapidly or too haphazardly to incorporate adequate environmental safeguards.

Environmentally Sensitive Areas

By designating areas as sensitive lands, a number of communities across the country are attempting to preserve highly diverse ecosystems and resources. In Minnesota—where the state Department of Natural Resources encourages communities to adopt an ecosystem approach to land use planning—the city of St. Cloud requires developers to participate in a team planning process, based on the city’s inventory of sensitive features, before a preliminary plat is submitted. Scottsdale, Arizona, defines sensitive resources in terms of landform classes and has adopted development and design standards to protect them. Park City, Utah requires developers to provide a professional analysis of sensitive features on a site where development is proposed, and establishes standards for construction and post-construction resource protection. Iowa City, Iowa uses federal, state, and local definitions to identify sensitive resources, and incorporates resource protections into site plan review.

St. Cloud, Minnesota: The Environmentally Sensitive Areas (ESA) ordinance of St. Cloud emphasizes the preservation of biodiversity and the prevention of landscape fragmentation. It defines environmentally sensitive areas as “areas that contain native vegetation and natural features and/or natural resources.” It gives comprehensive protection to “natural communities”—“naturally-occurring associations of plants and animals whose existence and extent are determined by factors such as soil composition, hydrology, climate, solar conditions and a site’s unique history.” The ordinance states that “further fragmentation, disturbance and development will adversely affect and may destroy” these communities and their natural processes.

Scottsdale, Arizona: Scottsdale’s Environmentally Sensitive Lands ordinance regulates public and private development in a 134-mile area of desert and moun-

tains. To protect the fragile environment of the Sonoran Desert, the city has adopted floodplain and native plant ordinances, open space and conservation districts, a foothills overlay, and a comprehensive plan that includes “Character Areas” – designated areas where the city will “promote preferred design concepts” instead of relying only on regulation of the layout of development.

Park City, Utah: Park City’s Sensitive Areas Overlay Zone ordinance restricts or prohibits development in order to protect steep slopes, ridgelines, wetlands, stream corridors, and wildlife and wildlife habitat. The ordinance encourages the clustering of development and “the preservation of large expanses of open space and wildlife habitat.”

Iowa City, Iowa: Iowa City’s Sensitive Area ordinance provides both for overlay zoning of environmentally sensitive areas and for resource protection through site plan regulations. Sensitive features are defined as: federally defined wetlands, drainageways, and hydric soils; FEMA- or city-defined floodways; slopes greater than 18%; 2-acre or larger woodlands; city-designated prairie remnants; and state-defined archeological sites.

Regional Planning and Comprehensive Ordinances

The majority of local ordinances in the U.S., including those in Gaining Ground, focus on regulating a single resource or topic within a single county or municipality. However, some of the most cutting edge local environmental and smart growth laws today involve land use planning at the regional-scale, as well as comprehensive ordinances that address a multitude of environmental problems. Regional planning is used in various parts of the country where management of a particular natural resource – often a lake, bay, or other large body of water – is shared by a variety of counties, municipalities, and even states.

Minnesota State Statutes: Metropolitan Area Council

Sec. 473.145 Development Guide. The Metropolitan Council shall prepare and adopt, after appropriate study and such public hearings as may be necessary, a comprehensive development guide for the metropolitan area. It shall consist of a compilation of policy statements, goals, standards, programs, and maps prescribing guides for the orderly and economical development, public and private, of the metropolitan area. The comprehensive development guide shall recognize and encompass physical, social, or economic needs of the metropolitan area and those future developments which will have an impact on the entire area includ-

ing but not limited to such matters as land use, parks and open space land needs, the necessity for and location of airports, highways, transit facilities, public hospitals, libraries, schools, and other public buildings.

Regional planning brings together leaders from different governing boards in an effort to coordinate management and set collective environmental and land use standards. An excellent example of regional planning involves the Tahoe Regional Planning Authority (TRPA) of California and Nevada.

TRPA is a joint venture between the governments of these states to create a regional master plan, set environmental standards, and implement and enforce land use regulations to achieve environmental goals for the Lake Tahoe region. TRPA involves a number of land use regulations, including a bonus unit incentive program for developers who implement environmental protection measures; a development allocation ordinance that controls the rate and timing of development; land cover limitations that limit the percentage of a parcel that may be developed; and a wildlife resources ordinance that protects wildlife habitat as well as food, water, shelter, and space.

Adopting uniform standards throughout the Lake Tahoe region helps ensure that stricter regulations in one area do not serve to intensify development elsewhere on the lake; developers face the same restrictions throughout the region. Regional planning efforts such as this also help articulate shared goals and ensure that all municipalities take responsibility for protection of a shared resource.

Envision, Utah is a network of interest groups working at the regional level along a 100-mile corridor running north and south of Salt Lake City. It comprises 88 local governments and 80% of the state's population. Assisted by state grants, Envision Utah is a nongovernmental alliance with significant private funding. Envision Utah conducted extensive opinion surveys of residents who demonstrated a strong preference for walkable, transit-oriented development, infill strategies, and redevelopment of urbanized portions of the region. Based on grassroots-derived implementation strategies, the state legislature passed the Quality Growth Act in 1999, established a commission, and charged it with assisting local governments with grants and technical assistance. The commission is also responsible for coordinating the work of six state agencies. Envision Utah developed a toolbox of techniques that can be used by local governments and inter-municipal councils to create their own visions and implement the regional vision.

Perhaps the most innovative example of local environmental law and land use planning is the creation of a comprehensive ordinance covering all aspects of environmental protection and smart growth.

A comprehensive environmental ordinance in Tumwater, Washington, has developed over the past 20 years to address a variety of environmental concerns. The ordinance provides tree and vegetation protection by designating a city tree protection professional, establishing a tree account, setting standards for heritage tree designation, and creating permitting standards and processes for tree removal. It protects the right to farm and right to mine by limiting nuisance claims within areas properly zoned and established as mining or agriculture. To ensure aquifer protection, developers are required to prevent chemical and biological contamination of groundwater through various methods.

The ordinance also puts forth wetlands protection standards that create a wetland rating system, mandate the identification and delineation of wetland boundaries, regulate activities within wetland areas, develop a permitting process for development in sensitive areas, establish mitigation standards, and provide for enforcement of all wetlands regulations.

A fish and wildlife habitat protection clause promotes the identification of habitats, designates the allowed uses within these areas, creates buffer zones, addresses residential impacts, and requires habitat protection plans. Lastly, a commute reduction plan requires employers to promote alternative commuting methods, reduce vehicle miles traveled, and reduce use of single occupant vehicles in order to reduce traffic congestion, air pollution, and energy consumption.

Tumwater, Washington

Washington State requires local governments to consider environmental quality and growth management in their land use decision-making. Under the broad mandates of the State Environmental Policy Act of 1971 (SEPA), regulatory permits are required for much private development as well as for government actions. Under the Growth Management Act of 1990 (GMA), counties and cities were required or permitted — depending on their size and rate of growth — to create urban growth areas and to protect environmentally sensitive lands and resources under state standards. Tumwater, the third largest city in Thurston County, adopted the SEPA standards by reference into the Environment chapter of its municipal code, and in 1991 added natural resource protections that conform to the GMA.

The GMA and the state's Administrative Code define critical environmental areas that require protection by counties and cities: wetlands, aquifer recharge areas, fish and wildlife habitats, flood-prone areas, and geologically hazardous areas. In planning to protect critical areas, local governments are required to use the best available science. The Thurston County Code also regulates development under the GMA. Tumwater's local natural resource protection ordinance implements state policies to protect specific resources in an urbanized environment.

This type of comprehensive ordinance is the way of the future if we are to ensure adequate protection to all natural resources and incorporate smart growth efforts seamlessly with environmental protection. Many municipalities have already developed a strong body of local environmental law through piecemeal efforts, but these ordinances often fall under different sections of the city or town code and are not viewed as a cumulative strategy to protect the environment and prevent sprawl.

Combining environmental and smart growth laws into a single ordinance, or a cohesive body of ordinances located together in an Environmental Protection chapter of the municipal code, gives unity and credence to environmental protection efforts and acknowledges how laws aimed to protect water, wildlife, trees, and open space work synergistically with laws that seek to encourage conservation and resource efficiency and put development where it belongs. The future of local environmental law and land use planning will require comprehensive and cooperative efforts such as these.

Sun Prairie, Wisconsin

The Natural Resource Protection regulations of Sun Prairie, Wisconsin explicitly recognize interrelationships among natural resources and also recognize the interrelationship of development and conservation decisions in planning to protect natural resources. The city is facing very rapid growth as a suburb of the state capital, and is close enough to its rural past to have a sizeable area still open for development. Sun Prairie's ordinance identifies and defines nine discrete resources. The protections are mandatory. The natural resource regulations are specifically integrated with density and intensity standards of the city's zoning code. The natural resource regulations are also integrated with the natural resource and development goals of the city's master plan, and with inter-municipal and regional plans.

Sun Prairie's Natural Resource Protection ordinance contains overlays protecting nine discrete resources: floodplains; wetlands; shorelands; drainageways; woodlands; steep slopes; ridgetops; prairies; and state-identified historic resources. A

Purpose statement emphasizes the overlays' interrelationship with the density and intensity standards, mitigation standards, and other development standards of the zoning ordinance. The overlay regulations parallel one another in a four-part format: the resource is defined; the purpose of each regulation is set out; the required method of identifying the resource is described; and the mandatory requirements for protection are given. A separate section sets out requirements for a detailed site analysis of permanently protected greenspace areas.

Sun Prairie is implementing its goals for natural resource protection and flexible development through a downtown revitalization project, several traditional neighborhood development projects, and an ambitious plan for development of the largest remaining open area of the city.

FACTORS INFLUENCING LOCAL INNOVATION

In analyzing material gathered for the database, it was initially thought that research would reveal distinct geographical trends in innovation. However, the diversity of ordinances in the database heralding from all 50 states makes clear that it is not possible to generalize on a regional scale. Although one may initially observe that a particular state or region appears to be more innovative than another, deeper analysis reveals tremendous variation on a smaller scale. A state not considered particularly innovative might be home to a quite progressive town that boasts one of the most innovative ordinances in the nation.

Making large-scale generalizations does not do justice to the tremendous grassroots power and potential for any local government, anywhere, to create and adopt local environmental laws. Hence, this analysis focuses not on ranking states or regions in terms of innovation, but instead describes certain factors that appear to influence the degree to which a particular municipality has adopted innovative environmental and smart growth ordinances, and the type and scope of ordinances adopted.

Local Resources

The most salient factor that effects the type of ordinances adopted – irrespective of innovation – is the nature of the local resources themselves, which tend to vary based on climate, topography, and other factors. For example, different parts of the country have very different water needs. In moist, low-lying areas where water tends to be abundant, floodplain and wetlands regulations are important. By contrast, in arid regions where drought and water scarcity are large concerns, water conservation ordinances become necessary.

Likewise, wildlife protection ordinances have proliferated in western states that contain vast, open habitats and wilderness where large mammals thrive. In the East, where widespread urbanization has reduced available habitat and extirpated a number of species, local wildlife laws appear to operate on a smaller scale and tend to

focus on a single threatened species rather than a large tract of habitat. It is important to consider these regional resource variations when analyzing local land use law.

An appropriate set of ordinances in Tampa, Florida will necessarily look quite different from those of Boulder, Colorado. Rather than seeking to define or adopt a “standard” set of environmental and smart growth ordinances, municipalities should carefully consider their own natural resources and development priorities and create a framework tailored to their local needs.

Local Authority to Regulate Land Use

Commentary

Determining whether local governments in any particular state have authority to adopt innovative land use laws requires a careful reading of the sources of delegated authority to control land use and an understanding of the rules of interpretation of these statutes in each state. Some state statutes and courts have adopted rules of strict construction, narrowly interpreting local power; others have interpreted the express, implied, and home rule authority of their municipalities more broadly.

In most states, it is understood that municipalities have no inherent powers but exercise only that authority expressly granted or necessarily implied from, or incident to, the powers granted to them by their state legislatures. The express authority to adopt land use plans and zoning regulations is delegated to local governments in most states through planning and zoning enabling acts. Many states have supplemental acts delegating land use authority to municipalities, such as the power to adopt subdivision and site plan regulations or to adopt transfer of development rights programs or protect particular environmental features such as wetlands, shorelines, and river corridors.

Land use enabling laws can be broadly construed to empower localities to adopt innovative and flexible land use regulations. One of the purposes of local zoning laws is to provide for “the most appropriate use of the land,” a broad objective indeed. This phrase was contained in the original model zoning enabling act and is found in the law of most states. State statutes may require all land use regulations, including zoning, subdivision and site plan regulations, and all other regulations affecting the use of private land, to conform to a comprehensive plan.

In most states, home rule authority is delegated to localities, giving them broader authority to adopt laws that affect local property, affairs, and government so long as those laws do not conflict with general or preemptive state laws.

States utilize a variety of methods to grant home rule powers to their localities. In most states, home rule authority is contained in the constitution. This

authority, in some states, is self-executing and enables localities to adopt land use laws; in others, it requires the state legislature to adopt a home rule law and to delegate self-regulatory powers within a defined range of interests. Home rule provisions in state constitutions and statutes can delegate broad self-government authority or provide a rather narrow range of local legislation under home rule power. Where municipalities enjoy home rule authority, they may be able to exercise land use authority flexibly, outside the prescriptions and constraints of the zoning enabling laws. In other states, courts hold that localities must control private land use activity through discrete land use enabling laws and are limited to the techniques and procedures prescribed by them. At a minimum, local home rule power authorizes localities to legislate regarding their own property, affairs, and government, except where general or preemptive state laws operate. In nearly all states, home rule authority is not deemed to prevent the state from legislating regarding legitimate state interests by guiding, directing, or preempting local land use control.

There are a number of other factors that seem to influence the degree to which a community has embraced innovative land use laws. The amount of development pressure, the level of affluence, the political climate, and the degree of state-level support for growth management all play a role in determining the likelihood of a particular community to adopt innovative local environmental and smart growth laws. Rather than rely on generalizations about specific states or regions, it is much more instructive to look to the interplay of these four factors as a useful model to predict where land use innovation is likely to occur.

Development Pressure

Development pressure plays perhaps the biggest role in determining the degree to which a particular community has adopted innovative land use laws. Development pressure is a somewhat subjective measure, having much to do with how residents perceive the rate of development as well as actual rates of growth. People become aware of development pressure directly when they witness new land being cleared for subdivisions and strip malls; they also sense development pressure indirectly as traffic congestion increases, schools become crowded, open space disappears, and urban services are stressed.

Duluth, Minnesota

Duluth's Natural Areas Program provides a means by which large, ecologically significant areas of relatively pristine land owned by the city (or those volunteered by private landowners) may be permanently conserved. Any citizen can nominate a city-owned tract of land, or their own land; nominated parcels are then surveyed for appropriateness of inclusion (based on measures of ecological

or environmental significance to the region). Upon initial approval, nominators have one year to complete a management plan for the parcel. The program aims to set aside Duluth's most pristine lands before they come under development pressure.

A useful measure of development pressure is the population growth rate, though in many cases land use and development occur at a pace many times greater than the population growth rate. Population density also plays a role in development pressure, since less densely populated regions may have the capacity to temporarily absorb a high rate of population growth, whereas densely populated areas face more immediate stresses from high growth rates.

Research for *Gaining Ground* revealed that development pressure oftentimes plays a key role in motivating communities to adopt innovative land use regulations. In general, rural areas where open space is abundant and environmental degradation is slight face less pressure to protect their resources, whereas urban and suburban regions facing high growth rates, rapid loss of farmland and open space, and leapfrogging development tend to be more motivated to work toward stricter land use regulation and environmental controls. It is thus not surprising that the highly developed urban areas of the Northeast tend to have more sophisticated land use and environmental laws than very rural, unpopulated parts of the West – but this factor plays a role on a much more local scale as well. For example, in New Hampshire many cities and towns in the southern part of the state have adopted innovative local laws to curb the effects of growth and sprawl from the greater Boston area, while the northern part of the state is dominated by a more rural economy based on agriculture and logging where land-use planning is less of a priority.

Population Growth and Development

Commentary

The U.S. Environmental Protection Agency (EPA) estimates that before the arrival of Europeans there were a billion acres of forest in what is now the contiguous United States; almost a billion acres of grasslands and shrublands; and 221 million acres of wetlands. In 2002, there were 749 million acres of forest; 861 million acres of grasslands and shrublands; and 105.5 million acres of wetlands. The National Resources Inventory of the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) reports that between 1992 and 2001, 2.2 million acres of rural land were developed each year; in the previous decade, 1.4 million acres per year were developed. Between 1982 and 2001, a total of 34 million acres were developed – an area the size of the State of Illinois. Of the 9 million acres developed from 1997 to 2001, 46% were from forestland, 20% from cropland, and 16% from pastureland. The National Oceanic and Atmospheric Administration estimates that there are now 43,480 square miles of impervious surfaces in the contiguous United States – an area the size of Ohio.

The population of the United States is now 281,421,906 – a 13.2% increase since 1990. Between 1990 and 2000, all 50 states gained in population, with the greatest growth occurring in the West and South. A Surdna Foundation report on Implications of 2000 Census Results for the Environment notes that the greatest growth throughout the country was within metropolitan areas: today more than 80% of Americans live in metropolitan areas; 50% live in suburbs. The report stresses that these growth patterns can create sprawl, and that sprawl increases the impacts of natural disasters. The Preliminary Report of the U.S. Commission on Ocean Policy (2004) states that 53% of Americans now live in coastal counties, which make up only 17% of the total area of the contiguous United States, and that 3,600 people a day move to coastal counties. The report notes that “[r]ising populations and poorly planned development in coastal areas are increasing the vulnerability of people and property to storms, hurricanes, flooding, shore erosion, tornadoes, tsunamis, earthquakes, and sea level rise.”

Affluence

Affluence also appears to play a role in the level of land use planning and innovation within a particular community. Affluent communities tend to have more financial resources with which to fund conservation efforts such as open space acquisition. They also seem to be more conservation-minded, particularly in resort communities and areas of scenic beauty where people have moved to the area for its natural beauty and clean environment (Florida and Colorado are examples). This combination of environmental awareness, as well as available funding for conservation, tend to support more innovative local environmental and smart growth laws.

Sanibel Island, Florida

Sanibel’s City Plan was originally adopted in 1976 and contains extensive policies to protect coastal, open space, water, and scenic and historic resources. An Island-Wide Beach Management Plan was adopted in 1995 and discusses causes of erosion, erosion control methods, beach and shoreline protections, and storm effects. The city’s Vision Statement sees Sanibel as a “sanctuary” – a small community that values and, as a resort area, depends on its natural resources and is trying to maintain “a tenuous balance” between development and preservation.

Long Grove, Illinois

Large-lot zoning can be a simple way of protecting open space and related natural resources, although it is often criticized as being potentially exclusionary and inducing sprawl. Long Grove's Conservancy Districts ordinance establishes two districts for natural resource protection: a Lowland Conservancy District protects wetlands, aquifer recharge areas, floodplains and flood-control areas and agricultural lands within floodplains, wildlife habitat, and recreational and aesthetic resources; an Upland Conservancy District preserves woodlands, steep slopes, aquifer recharge areas and groundwater sources, and recreational and aesthetic resources. A three-acre minimum lot size is required where all three upland characteristics are present in a single development. The ordinance's General Purpose section states that "[i]rrespective of other zoning classifications, certain soil types and configurations of terrain place definite and specific limitations on building construction, development and land utilization." The ordinance is intended "to avoid all possible damage" to the village's ecology, and notes that "in the greater Chicago metropolitan area this type of ecological community is fast disappearing."

Conversely, economically disadvantaged areas tend to evince lower levels of support for conservation and innovative land use planning. Low-income rural areas and inner-city communities struggling with poverty and unemployment do not seem to place land use at the top of their list of priorities. For example, West Virginia with its struggling rural economy demonstrates much lower support for conservation and land use planning than does its neighboring state of Virginia, where citizens are more lucratively employed in the urban Washington, D.C. corridor.

Political Climate

A third factor influencing the level of local land use innovation is the political climate of an area. People hold strikingly different views about the degree to which land use should be regulated. Conservatives tend to believe in the sanctity of private property rights and the right of a landowner to use one's land as one sees fit, without government intervention. Liberals are generally more supportive of environmental protection and are more willing to sacrifice individual rights for the benefit of the environment or the public good. The issue is far from black and white; there are many shades of gray in between, and factors such as family upbringing, education, and regional culture probably exert as great an influence as political ideology.

There seems to be an unmistakable trend, however, relating political climate to land use regulation. Innovative local land use laws appear much more likely to occur in regions with a more liberal political climate, while there tends to be less innovative land use regulation in conservative areas. As with the other factors, it is difficult and not particularly instructive to generalize, but this phenomenon might also explain

why land use controls in the more liberal East seem to be more comprehensive overall than those in the conservative West. Again, it must be noted that like any other factor there is tremendous local diversity in political climate, and it is possible to find a highly conservative town in rural Vermont or a progressive city in Utah where land use trends are the opposite of what one might expect from broader generalizations.

State Support

A final factor observed to influence innovation in land use law is the degree of state-level support for growth management and environmental protection. There is a wide spectrum in terms of the guidance offered by states to local governments in the realm of land use regulation. Some states such as South Dakota and West Virginia offer little or no direction, making planning entirely optional or even nonexistent. At the other end of the spectrum, several states including Oregon and Florida have made comprehensive planning mandatory and require that all local and county laws be consistent with state and regional plans.

Oregon: Urban Growth Boundaries

The Oregon growth management statute, adopted in 1973, creates a state agency known as the Land Conservation and Development Commission (LCDC), articulates a number of statewide land use planning goals, requires local governments to adopt comprehensive plans that contain urban growth boundaries, and requires local plans to be approved by the Commission. The statute also created the Metropolitan Service District (Metro) to supervise the inter-municipal urban growth boundary in the greater Portland area. In 1979, the statute was amended to create the Land Use Board of Appeals (LUBA) to review local land use decisions.

Goal 14 of the Oregon growth management statute – the urbanization goal – classifies land into three categories: rural, urbanizable, and urban. Rural lands are agricultural, forest, or open space lands, or other land suitable for sparse settlement, with few public services. Urbanizable lands are to be contained within an urban growth boundary and are deemed suitable for future urban uses: lands that can be served by infrastructure and that are needed for the expansion of an urban area. Urban areas are within or adjacent to existing cities with concentrations of population and supporting public facilities and services. The statute provides for the orderly conversion of rural land to urban, based on the consideration of a number of factors including the need to accommodate population growth through the provision of housing, jobs, and infrastructure.

Most states fall somewhere between these two extremes, making some effort to regulate land use planning but failing to follow through with requirements or provide technical support where it is needed. For example, a number of states require or rec-

commend that municipalities adopt comprehensive plans, but they do not require these plans to be updated or even used in making land use decisions. Mandatory comprehensive planning is needed to overcome this shortcoming.

In addition, many states do not require zoning decisions to be consistent with a long-range plan or vision, rendering planning virtually meaningless. This problem can be overcome by requiring consistency between comprehensive plans and zoning regulations. In many municipalities zoning rules are administered inconsistently, leading to confusion among local staff, government officials, developers, and the public. It is important that local officials set and follow precedents for zoning decisions. States where land use law is most innovative have adopted strong state-level growth management programs that provide leadership, coordination, capacity building, and funding to local governments to implement comprehensive plans and innovative local environmental and smart growth laws. This degree of support from higher levels of government is necessary to ensure implementation and enforcement of innovative land use laws at the local level.

Illinois: Local Planning and Technical Assistance Act

The Illinois legislature adopted the Local Planning and Technical Assistance Act in 2002. The law's purpose is to provide technical assistance to local governments for the development of local planning ordinances, to promote and encourage comprehensive planning, to promote the use of model ordinances, and to support planning efforts in communities with limited funds. The Department of Commerce and Community Affairs is authorized to provide technical assistance grants to be used by local governmental units to "develop, update, administer, and implement comprehensive plans, subsidiary plans, land development regu-

lations . . . that promote and encourage the principles of comprehensive planning." A particularly important tool is found in a section of the Act that sets forth the specific elements that must be included in a plan in order for it to qualify for grant money. The Local Planning and Technical Assistance Act does not mandate comprehensive planning. However, the grant money provides a strong incentive for communities to engage in planning. The text of the Act can be found in the last section of this report.

The factors described above – development pressure, affluence, political climate, and state-level support – are not discrete variables acting independently of one another. In many cases they are intimately connected. For example, the level of affluence in a region may influence its political climate, which may, in turn, affect state politics and the level of state support. Likewise, rural areas tend to have lower levels of development pressure, less affluence, and a more conservative political climate, whereas the opposite is true of many urban areas. The variables described above are not meant to be descriptive or absolute, but merely predictive and perhaps instruc-

tive in understanding why land use regulation varies so widely across the nation and even from one town to the next.

The additional factor of local resource distribution influences the nature of the laws adopted in different parts of the country. These factors can help us understand why innovative local environmental laws are abundant in some areas but not others. Most importantly, local officials and change agents should consider each of these factors when setting out to promote land use reform and environmental protection at the local level.

ELEMENTS OF CHANGE

We have explored what constitutes innovation in various categories of land use regulation, and we have discussed what factors seem to influence the level of innovation of local environmental and smart growth laws within a particular area. This final section of analysis focuses on how innovation occurs within particular communities and identifies some of the factors influencing innovation and change in land use law at the local level, offering examples of how those factors operated in the context of a real community and a successful local ordinance.

Innovative Planner

Where innovation occurs in land use law, there is often an innovative local planner responsible for initiating change. In some cases the town planner acts alone, drafting and proposing an innovative ordinance that he or she believes is important to protecting the environment and promoting smart growth. In other cases, the planner acts as part of a group of concerned leaders within city government or at the behest of citizens and other local groups. The election of progressive local officials to municipal planning boards seems to be a key ingredient motivating innovation and change in local land use law.

New Milford, Connecticut

“Lot and Area Definition: the total horizontal area within the lot lines. In determining compliance with the minimum lot area requirements of these regulations, areas consisting of wetlands, watercourses, natural slopes in excess of 25%, portions of the lot less than 25 feet wide, or the private right-of-way leading to the rear lot shall not be included.”

This simple definition in New Milford’s zoning and subdivision regulations prevents wetlands and steep slopes from being developed in the town. Under this definition, development within these resource areas is not negotiable anywhere in the town. The local government adopted the Lot and Area definition in response to intense development pressures as a means of protecting New Milford’s remaining wetlands and slopes. The ordinance has been upheld by the state courts.

In the course of researching ordinances for *Gaining Ground*, students interviewed many local planners who had themselves initiated conservation and smart growth efforts.

The city of Eugene, Oregon adopted a Sustainability Resolution thanks to the efforts of one city council member who requested that a report be written to define sustainability for the council. This effort resulted in the adoption of a formal resolution stating that the “concept of sustainability will guide city policies and actions,” with the goals of supporting a diverse and equitable economy, conserving natural resources, protecting native vegetation and habitat, and minimizing harm to ecosystems.

A similar local innovation occurred when the town planner of Pawling, New York grew concerned about the effects of timber harvesting and erosion on stream quality. The planner worked with the state conservation agency and state foresters to adopt a Timber Harvesting ordinance that set standards for logging, including regulations on slope steepness, distance from streams, and use of logging roads. The law is enforced through a permitting process and frequent inspections by the town planner himself. Across the country, individuals like these have demonstrated a strong commitment to natural resource protection and smart growth at the local level and have played a large role in passing innovative land use ordinances within their communities.

Enlightened Citizenry

The support of local citizens is another important element in adopting innovative land use laws. Our research suggests that innovative ordinances have been most successful in communities where environmental awareness is strong. The degree of local support for conservation may be related to factors discussed above such as affluence and local political climate. It was noted that a number of so-called “college towns,” such as Yellow Springs, Ohio (home of Antioch College), demonstrated greater support for conservation than did surrounding areas. Community support can be a strong motivating factor both directly and indirectly. In some cases, community members or citizen groups lobby for legislation out of concern for a particular issue.

Lewiston, Maine

Lewiston has created the No Name Pond Protection Overlay District, under the authority of the state Site Location of Development Act, the Stormwater Management Act, and the Shorelands Protection Act. This pond protection overlay sets stringent standards including restricted fertilizer use, reduced lawn sizes, stormwater management regulations and on-site sewage disposal system setbacks within the watershed in an effort to reduce phosphorous loading into the already stressed pond. It was initiated by the No Name Pond Watershed Plan Association, which developed an action plan to provide recommendations to improve water quality in the pond and to reduce non-point source pollution in the watershed. Under the plan, which was adopted by the town, local septic regulation, in particular, is more stringent than state septic regulation.

In other cases, local officials are simply motivated by strong community support for conservation to initiate innovative land use laws. For example, the barrier island community of Sanibel, Florida has a strong set of environmental protection ordinances including wetlands protection, conservation districts, development standards, environmental performance standards, exotic species prohibition, and mangrove protection. According to the local planning director, the island's success in achieving environmental protection is due to a conservation-minded citizenry that has consistently offered strong support for land use regulation and supported the election of enlightened local officials. Generating local support for environmental protection and smart growth is thus a key component of instituting land use innovation and reform.

Crisis-Driven Innovation

In many cases, municipalities become motivated to adopt innovative environmental and smart growth laws in response to a crisis situation such as a pollution spill, an environmental health threat, or a rapid increase in development pressure. Both citizens and local leaders respond to these threats by pushing for local laws to safeguard the health, character, and environmental quality of the community.

In Jay, Maine, a 17 million gallon wastewater spill at a local paper mill prompted local officials to enact an Environmental Control and Improvement Ordinance to set standards for pollution emissions, accident reporting, and fines. This law ensures enforcement and compliance at the local level, providing an added layer of protection beyond state and federal pollution laws.

The citizens of Marmet, West Virginia responded to health threats posed by overloaded coal trucks, which spilled dust and debris throughout the city and caused a number of traffic accidents and fatalities. The Overweight Coal Truck ordinance limits the weight of trucks allowed to pass through town.

In Austin, Texas, community members discovered that the quality of water in their local aquifer was threatened by non-point sources of pollution caused by inappropriate land use in the watershed. Citizens mobilized to form the Save Our Springs (SOS) Alliance, which sued the City to force a popular election on the Save Our Springs ordinance to regulate land use within the Edwards Aquifer.

These are just a few of the many innovations in local environmental and land use law made in response to a local crisis. It appears that much local environmental law-making remains reactionary rather than precautionary. Although it is encouraging to see how many communities have worked together to enact environmental safeguards in response to a local crisis, it is important for municipalities to learn from these crises and begin to follow a more preventative course of land use lawmaking that will prevent resource degradation and urban sprawl before it becomes a crisis situation.

State Mandate

Although state guidance varies dramatically in terms of land use law, relatively innovative ordinances can be found in almost all states. However, in researching ordinances for *Gaining Ground* it became clear that states with more progressive enabling

legislation and that offer more guidance and support to municipalities for land use planning tend to have the strongest and most comprehensive presence of innovative local laws.

Minnesota's Floodplain Management Act

The standards of Minnesota's Floodplain Management Act are stricter than the standards of the National Flood Insurance Program (NFIP). A state's definition of the boundaries of the regulatory floodway can increase the amount of floodplain subject to development limits well beyond the federal standard. The NFIP adopts a 1-foot base flood elevation rise to define the floodway. Minnesota defines the base flood elevation rise as 0.5 feet. (Wisconsin has adopted an even stricter 0.01 foot increase.)

Minnesota has established standards for local ordinances in flood hazard communities. Structures in the flood fringe must be above the base flood level. The state Department of Natural Resources (DNR) may require landowners to purchase flowage easements. The state must approve levees and other structural flood controls. Local governments must establish permits for any development in base flood areas. Site-specific analysis must take into consideration the future development of adjacent land. The DNR must have advance notice of local variance hearings.

Strong statewide growth management legislation helps foster change at the local level by making it mandatory for communities to adopt comprehensive plans that are consistent with state and regional goals. States can also motivate change at the local level by providing funding and technical assistance for local planning, natural resource inventories, enforcement and compliance with local laws. A strong state mandate for growth management prompts local innovation by motivating local governments to consider their needs and goals for future growth. State agencies also may act directly as change agents to provide resources and information on planning and innovative land use ordinances to achieve smart growth and environmental protection.

Iowa's Erosion Control Program

Iowa's state-mandated erosion control program is locally designed and enforced. The state gives conservation districts broad guidelines for adopting erosion control ordinances. Adopted regulations are subject to approval by a state committee. To ensure compliance, conservation districts are authorized to inspect land on their own initiative or upon a complaint, and to issue an administrative order if a violation is discovered. The Grading and Soil Erosion Control ordinance of the city of Des Moines requires "proper provisions for surface and subsurface water disposal and the protection of soil surfaces during and after an earth-changing activity in order to promote the safety, public health, convenience, and

general welfare of the community.” Subdivision proposals and site plans must include soil erosion and sediment control measures. Landowners may not grade, strip, excavate, fill, stockpile, or cause any non-agricultural earth change without a grading permit.

The state of Oregon is nationally renowned for its growth management program. Oregon has adopted 19 state planning goals encompassing citizen involvement, forest protection, agricultural lands, coastal resources, air and water quality, urbanization, transportation, housing, and energy. Every city and county in the state is required to adopt a comprehensive plan that addresses these goals, to be implemented through zoning and other regulations. As a result, some of the most innovative land use ordinances in the nation are found in Oregon. The state is also home to the nation’s only directly elected regional government, Metro Regional Planning, which has created urban growth and vision goals, transportation plans, environmental protection zones, water quality and open space overlay districts, habitat protection ordinances, a riparian protection zone, and an erosion prevention program in various municipalities under its jurisdiction.

The state of Florida has followed Oregon’s lead by enacting a comprehensive statewide growth management program that integrates planning at the state, regional, and local levels. Each county and municipality is required to adopt a comprehensive plan that is consistent with state and regional plans and must incorporate objectives and policies for future land use, transportation, housing, potable water, sanitary sewer, solid waste, stormwater management, conservation, recreation, open space, and coastal management. Florida’s enabling statute further encourages that use of “innovative land development regulations which include provisions such as transfer of development rights, incentive and inclusionary zoning, planned-unit development, impact fees, and performance zoning.” Many Florida communities have successfully adopted innovative land use laws in response to the state planning and growth management requirement. For many municipalities that lack funding and capacity to make sweeping reforms to the local municipal code, state-level support can provide the impetus needed to initiate change.

Boynton Beach, Florida

Florida law requires municipalities to include in their comprehensive plans provisions for the “conservation, use, and protection of natural resources in the area, including . . . natural and environmental resources.” The tree preservation law adopted by the city of Boynton Beach, Florida, is expressly intended to encourage the proliferation of trees and vegetation within the city. It contains detailed provisions on permit requirements, information to be included in site plans, and actions to be taken to protect trees during construction. The ordinance defines “removal” to include an act that will cause a tree to die within three years. It also

gives the city inspector discretion to designate areas of undeveloped property that are fragile, unique, or valuable. “Every effort” is to be made to retain such areas in their natural state, provided no undue hardship results to the owner.

Outside Change Agent

A change agent disseminates information to the local level in order to inspire reform. In the case of land use law, change agents include environmental and smart growth organizations, university research facilities, government agencies, and similar groups that educate local leaders about the effects of sprawl and environmental degradation and offer ideas and information on how to adopt innovative ordinances to protect the environment and promote livable communities. Many change agents also offer skills training, technical support, and financial assistance.

A number of institutions became involved in developing a Greenway Lands ordinance for West Vincent Township, Pennsylvania, for example. The Natural Lands Trust, the Pennsylvania Department of Conservation and Natural Resources, and the Pennsylvania State University Cooperative Extension Service worked in cooperation to preserve contiguous open space as part of a Growing Greener program.

Town of Dunn, Wisconsin

In Wisconsin, more than 50 land trusts protect over 100,000 acres of land within the state. The Gathering Waters Conservancy is an umbrella organization that assists the state’s land trusts and communities in preserving land and water resources. The town of Dunn, in Dane County, has implemented land preservation efforts for more than 25 years, and in 1997, working with the Dane County Natural Heritage Land Trust, initiated the first purchase of development rights project for land conservation in Wisconsin. The ordinance creating the town’s Land Trust Commission and Rural Preservation Program states that the commission “shall maintain contact with public and private agencies to maximize the resources and coordinate efforts to preserve the rural character of the town.” One member of the seven-member commission must be a representative of a county non-profit conservation organization. The ordinance authorizes the town’s board of supervisors to preserve land through the purchase of conservation easements, purchase of title, payments to non-profit organizations, and voluntary conveyances. The town’s program has protected more than 1,700 acres of land.

In Utah, the Jordan Valley Water Conservancy District has assisted local governments in the Jordan Valley region in creating a water conservation plan. This state agency drafted a model Drinking Water Source Protection ordinance that was adopted by Sandy City and other municipalities. In both cases, an outside agency initiated the process of change within the community and provided support to carry it through.

CONCLUSION

As more and more trained environmental professionals enter local government jobs, and as citizens become more aware of the effects of environmental degradation and sprawl, it is logical that these individuals will push for reform of local laws to reflect contemporary environmental concerns. If it is indeed the case that much innovative local environmental law is springing up from the grassroots, it seems that the role of existing “change agent” organizations will only increase in importance as citizens and local officials seek out technical and financial support to adopt new laws. It is crucial to establish linkages between these groups to facilitate communication and speed up the rate of diffusion of innovation.

By making available a database of innovative land use ordinances searchable by state, region, and topical area, the database will contribute to the creation, diffusion, and adoption of innovative local laws that achieve environmental protection and smart growth. It also serves as a networking resource to connect individuals and groups working to enact change within their communities so that they may collaborate and share ideas. In this way, the database is designed to increase the rate of the diffusion of innovation in local land use lawmaking.

The process of researching ordinances for the database, as well as the contents of the database itself, have provided insights into recent trends in land use law in the U.S. A new generation of land use law has emerged that has environmental values at its core. Ordinances focused on water quality, wildlife habitat, tree protection, open space preservation, energy efficiency, smart growth, and more have been adopted to protect local resources and create livable communities. Innovative land use laws appear to be more common in areas that have a high level of development pressure, a relatively affluent population, a liberal political climate, and strong state support for growth management. These factors are not definitive, however, as innovation has been observed across the country and in areas lacking some or all of these characteristics.

In terms of understanding how change takes place in communities that adopt innovative land use laws, there are many elements that appear to play a role. Change may result from the efforts of an innovative local planner, an enlightened and active citizenry, or an outside organization working to effect change. Moreover, change is often motivated by a crisis situation or the mandate of the state or regional government. The process of change in local land use law is most often organic, occurring from the bottom up. However, local leaders and citizens can benefit greatly from the assistance of local and regional organizations that promote environmental protection and smart growth. These change agent organizations play an important role in providing training to local leaders, offering technical and financial support, and helping spread successful innovations to other grassroots leaders. *Gaining Ground* aims to connect these groups with local officials and citizens to promote the adoption of innovative environmental protection and smart growth laws at the local level.

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Sample Local and State Laws

TRADITIONAL NEIGHBORHOOD DEVELOPMENT ORDINANCE, CITY OF RIVER FALLS, WISCONSIN

Commentary

In 1999, the state of Wisconsin adopted legislation that requires every city to enact a comprehensive smart growth plan by 2010. Each plan must incorporate specific smart growth elements, including traditional neighborhood developments, or TNDs. This TND ordinance exemplifies a local government's successful implementation of a state smart growth initiative.

Ordinance

17.112.020 Intent.

The purpose of this district is to allow for development of fully integrated, mixed use pedestrian oriented neighborhoods. The intent is to minimize traffic congestion, suburban sprawl, infrastructure cost and environmental degradation. Its provision adapted urban conventions, which were normally in the United States and the city of River Falls until the 1940's and historically were based on the following design principals:

- A. Neighborhoods have identifiable centers and edges.
- B. Edge lots are readily accessible to retail and recreation by non-vehicular means (a distance not greater than one half mile).
- C. Use and housing types are mixed and in close proximity to one another.
- D. Street networks are interconnected and blocks are small.
- E. Civic buildings are given prominent sites throughout the neighborhood. (Ord. 2002-02 (part))

17.112.030 Applicability.

- A. The traditional neighborhood development (TND) ordinance is an alternative set of standards for land annexed into the city for development consisting of forty (40) acres or more.
- B. The TND shall be required for those properties located within the neighborhood centers proposed on the future land use map of the sewer service area water quality management plan (October 2000).
- C. All TND developments shall follow the preliminary and final plat procedures listed in this code.
- D. If there is a conflict between standard and design ordinances, the provisions of this chapter shall apply. (Ord. 2002-02 (part))

17.112.040 Definitions.

The following definitions shall be observed and applied:

“Boulevard” means the portion of the street right-of-way between the back of curb line and sidewalk or property line. The right-of-way shall be a minimum of seven feet for all residential areas.

“Gateway” means a principal point or entrance into a district or neighborhood.

“Gateway building” means a building located at a gateway and that marks the entrance or transition through massing, extended height, use of arches or colonnades, or other distinguishing features.

“Modified grid street pattern” means an interconnected system of streets that is primarily a rectilinear grid and pattern, however, modified in a street layout and block shape as to avoid a monotonous repetition of the basic street/block grid pattern. Street layouts for blocks are generally in the range of two to four hundred (200-400) feet deep by four to eight hundred (400-800) feet long.

“Neighborhood center” means a street containing a mix of uses, including the planned small community’s greatest concentration of commercial development. The neighborhood center together with the community park shall form the focus of the traditional neighborhood.

“Parkway” means a landscape median commonly located in the center of a public right-of-way. Parkways vary in width from four to fifteen (15) feet, depending on the street type and intensity of adjacent uses.

“Traditional neighborhood” means a pedestrian-oriented neighborhood, with variable lot widths and sizes, a mix of dwelling unit types, and non-residential uses generally located along a neighborhood center or fronting on a community park. A minimum of two percent and a maximum of ten (10) percent of the gross area of the TND shall be designated for commercial and civic or institution use lots. At least fifty (50) percent of the minimum two percent lots shall be designated for civic or institution use lots. No part of the neighborhood should

be more than a fifteen (15) minute walk from the neighborhood center (core). (Ord. 2002-02 (part))

17.112.050 Traditional Neighborhood Development Design Standards.

A. Neighborhood Uses. In order to make a neighborhood walkable, it is important to mix land uses. Therefore a TND shall consist of three types of land uses: a mix of residential uses, a mixed-use area, and open space. A TND shall have approximately thirty (30) percent of the residential units designated for attached houses (multifamily) and small lot (fifty (50) feet or less in width) detached houses. These land uses types are provided below:

1. A mix of residential, uses of the following types can occur anywhere in the TND. For infill development, the mix of residential uses may be satisfied by existing residential uses within the TND.
 - a. Single-family detached dwellings;
 - b. Single-family attached dwellings, including duplexes, twin homes, townhouses, row houses;
 - c. Multifamily dwellings, including senior housing;
 - d. "Special needs" housing, such as community living arrangements and assisted living facilities.
2. Mixed-use area, of commercial, residential, civic or institutional, and open space uses as some are identified below. Residents should be within approximately one-half mile or a fifteen (15) minute walk from existing or proposed commercial, civic, and open space areas. Individual commercial businesses shall not exceed six thousand (6,000) square feet in building size. Commercial and civic or institution use lots shall be within or adjacent to a square or park.
 - a. Commercial uses:
 - i. Food services (such as: neighborhood grocery stores; butcher shops; bakeries; restaurants, not including drive-through; cafes, coffee shops, neighborhood bars or pubs);
 - ii. Retail uses (such as: florists or nurseries; hardware stores; stationery stores; book stores; studios and shops of artists and artisans);
 - iii. Services (such as: day care centers; music, dance studios; offices, professional and medical; banks; barber; salon; dry cleaning; (gas station(s) and their uses shall be approved by the plan commission and city council at the time of platting and subject to further plan review.);
 - iv. Accommodations (such as: bed and breakfast establishments, small hotels or inns).
 - b. Residential uses:
 - i. Single-family attached dwellings, including duplexes, townhouses, row houses;

- ii. Multifamily dwellings, including senior housing;
 - iii. Residential units located on upper floors above commercial uses or to the rear of storefronts;
 - iv. “Live/work” (home occupation) units that combine a residence and the resident’s workplace;
 - v. “Special needs” housing, such as community living arrangements and assisted living facilities.
 - c. Civic or institutional uses:
 - i. Municipal offices, police, fire stations, libraries, museums, community meeting facilities, and post offices (these may be substations);
 - ii. Transit shelters;
 - iii. Places of worship;
 - iv. Educational facilities (if required by school district).
 - d. Open space uses:
 - i. Central square;
 - ii. Neighborhood park;
 - iii. Playground.
- 3. Open Space, uses identified below should be incorporated in the traditional neighborhood development as appropriate. Large outdoor recreation areas should be located at the periphery of neighborhoods rather than central locations.
 - a. Environmental and scenic corridors;
 - b. Protected natural areas – conservancy parks;
 - c. Community parks;
 - d. Streams, ponds, and other water bodies;
 - e. Storm water detention/retention facilities.
- B. Development Units. The number of residential dwelling units and the amount of nonresidential development (excluding open spaces) shall be determined as follows:
 - 1. Mixed residential uses:
 - a. The number of single-family attached and detached units permitted shall be three to six dwelling units per net acre;
 - b. The number of multifamily units shall be medium six to nine and high nine to twelve dwelling units per net acre;

2. Mixed-use areas.
 - a. The number of single-family and multifamily dwelling units permitted shall be calculated the same as above.
 - b. All dwelling units constructed above commercial uses shall be permissible in addition to the number of dwelling units authorized under this section. However, the total number of dwelling units shall not be increased by more than ten (10) percent, whichever is greater.
- C. Parkland. Parkland shall be dedicated in accordance with the requirements of Chapter 16.20. Ninety (90) percent of the lots within the areas devoted to mixed residential use shall be within a one-half mile or a fifteen (15) minute walk from common open space dedicated for park purposes.
- D. Lot and Block Standards.
 1. Block and Lot Size Diversity. Street layouts should provide for perimeter blocks that are generally in the range of two to four hundred (200-400) feet deep by four eight hundred (400-800) feet long. A variety of lot sizes throughout the TND shall be provided to facilitate housing diversity and choice and meet the projected requirements of people with different housing needs. No block face shall have a length greater than five hundred (500) feet without a dedicated alley or pathway providing through access.
 2. Lot Widths. Lot widths should create a relatively symmetrical street cross section that reinforces the public space of the street as a simple, unified public space.
 3. Building Setback, Front-Mixed Use Area. Structures in mixed use area have no minimum setback. Commercial and civic or institutional buildings should abut the sidewalks in mixed-use area.
 4. Building, Setback, Front-Mixed Residential Uses. Single-family and multifamily residences shall have a building setback in the front between zero and twenty-five (25) feet.
 5. Building Setback, Rear-Mixed Residential Uses. The principal building on lots devoted to single-family detached residences shall be setback no less than thirty (30) feet from the rear lot line. All other building shall be setback minimum of five feet.
 6. Side Setbacks. Provision for zero lot-line single-family dwellings should be made, provided that a reciprocal access easement is recorded for both lots and townhouses or other attached dwellings, provided that all dwellings have pedestrian access to the rear yard through means other than the principal structure. A corner lot shall comply with this code.
- E. Circulation Standards. The circulation system shall allow for different modes of transportation. The circulation system shall provide functional and visual links

within the residential areas, mixed use area, and open space of TND and shall be connected to existing and proposed external development. The circulation system shall provide adequate traffic capacity, provide connected pedestrian and bicycle routes (especially off street bicycle or multi-use paths or bicycle lanes on the streets), control through traffic, limit lot access to streets of lower traffic volumes and promote safe and efficient mobility through the TND. The applicant shall show compliance with this section, this code, and city plans (bicycle and pedestrian plan, park and recreation plan and sewer service plan and city master plan) by submitting a circulation plan. The following provisions also apply:

1. Pedestrian Circulation. Convenient pedestrian circulation systems that minimize pedestrian-motor vehicle conflicts shall be provided continuously throughout the TND. Where feasible, any existing pedestrian routes through the site shall be preserved and enhanced. A minimum of a five foot-wide sidewalk shall be provided on both sides of all streets.
 2. Bicycle Circulation. Bicycle circulation shall be accommodated on streets and/or on dedicated bicycle paths.
 3. Public Transit Access. Where public transit service is available or planned, convenient access to transit stops shall be provided. Where transit shelters are provided, they shall be placed in highly visible locations that promote security through surveillance, and shall be well lighted.
 4. Motor Vehicle Circulation. Motor vehicle circulation shall be designed to minimize conflicts with pedestrians and bicycles. Traffic calming features such as “queuing streets,” curb extensions, traffic circles, center turn lanes, and medians may be used to encourage slow traffic speeds.
- F. Parking Requirements. Parking areas for shared or community use should be encouraged. In addition:
1. Mixed-use area. In a mixed-use area any parking lot shall be located at the rear or side of a building. If located at the side, screening shall be provided. [Refer to landscaping and screening standards below]
 2. Parking lot or garage. A parking lot or garage located adjacent to or opposite a street intersection shall be landscaped and screened.
 3. Parking plan. A parking plan shall be submitted by the applicant showing compliance with this code.
 4. Service access. Access for service vehicles should provide a direct route to serve and loading dock areas, while avoiding movement through parking areas. Alleyways may be provided in commercial and residential area for service vehicles, utilities, and other uses.
 5. Paving. Reduction of impervious surfaces through the use of interlocking pavers is strongly encouraged for areas such as remote parking lots and parking areas for periodic uses.

6. Architectural Standards. Due to the mixed-use nature of the development, architectural compatibility is necessary in order to visually integrate development and allow for proximity of varied uses. The design style of the TND shall be conveyed with drawing or computer simulations of typical proposed building elevations (including dimensions of building height and width, and facade treatment).
1. Guidelines for Existing Structures. Existing structures, if determined to be historic or architecturally significant, shall be protected from demolition or encroachment by incompatible structures or landscape development. The U.S. Secretary of the Interior's Standards for Rehabilitation of Historic Properties shall be used as the criteria for renovating historic or architecturally significant structures.
2. Guidelines for New Structures.
 - a. Entries and Facades.
 - i. For commercial buildings the architectural features, materials, and the articulation of a building shall be continued on all sides visible from a public street.
 - ii. The front facade of the principal building on any lot in a TND shall face onto a public street.
 - iii. The front facade shall not be oriented to face directly toward a parking lot.
 - iv. Porches, pent roofs, roof overhangs, hooded front doors or other similar architectural elements shall define the front entrance to all residences.
 - v. For commercial buildings, a minimum of fifty (50) percent of the front facade on the ground floor shall be transparent, consisting of window or door openings allowing views into and out of the interior.
 - vi. For commercial structures on opposite sides of the same street should follow similar design guidelines. This provision shall not apply to buildings bordering civic uses.
3. Guidelines for Exterior Signage. A comprehensive sign program is required for the entire TND that establishes a uniform sign theme. Signs shall share a common style (e.g., size, shape, material). Signs for commercial uses shall be wall signs or cantilever signs. Cantilever signs shall be mounted perpendicular to the building face and shall not exceed eight square feet.
4. Guidelines for Lighting. Street lighting shall be provided along all streets. Generally more, smaller lights, as opposed to fewer, high-intensity lights, should be used. Streetlights shall be installed on both sides of the street at intervals of not greater than seventy-five (75) feet. Street lighting design shall

meet the minimum standards developed by the Illumination Engineering Society. Lighting structures shall be architecturally compatible with the surrounding area. Lighting shall be shielded and directed downward in order to reduce glare onto adjacent properties.

H. Landscaping and Screening Standards. Overall composition and location of landscaping shall complement the scale of the development and its surroundings. In general, larger, well-placed contiguous planting areas shall be preferred to smaller, disconnected areas. Where screening is required by this ordinance, it shall be at least three feet in height, unless otherwise specified. Required screening shall be at least fifty (50) percent opaque throughout the year. Required screening shall be satisfied by one or some combination of a decorative fence not less than fifty (50) percent opaque behind a continuous landscaped area, a masonry wall, or a hedge.

1. Street Trees. Street Trees shall be planted in accordance to the requirement of this code.
2. Parking Area Landscaping and Screening. All parking and loading areas fronting public streets or sidewalks, and all paving and loading areas abutting residential district or uses, shall be in conformance with the parking standards and landscape requirements contained in this code. (Ord. 2002-02 (part))

TRANSFER OF DEVELOPMENT RIGHTS ORDINANCE CITY OF DOVER, NEW HAMPSHIRE

Commentary

The Dover Transfer of Development Rights Ordinance is intended to preserve natural resources by directing development to appropriate areas and leaving areas of high conservation value undisturbed. The ordinance was first enacted in 1990 and only included industrial areas. In 2003, it was expanded to establish sending and receiving zones for residential areas as well.

Ordinance

170-27.2. Transfer of Development Rights. [Added 10-31-90 by Ord. No. 16-90; amended 01-22-03 by Ord. 35-02]

- A. **Authority.** By the authority granted under NH RSA 674:21, this section creates overlay district(s) for the purpose of transferring development rights (TDR) within said districts.
- B. **Purpose and Intent.** Within the City of Dover there are certain lands that possess significant conservation features, including but not limited to wetlands, groundwater recharge zones, forested areas, wildlife habitat, farmland, scenic viewsheds, historic landmarks, and linkages to other such areas. Because of their unique assemblages of flora and fauna and their significant contribution to the ecological system and/or the cultural identity of our community, these lands are worthy of special protection. The City of Dover furthermore, has a limited supply of land suitable for development. The purpose of this overriding district is to promote intensive development on the developable land possessing the least conservation value and to permanently protect lands possessing significant conservation features that provide unique values in their undisturbed condition.
- C. **Applicability.** Upon request by an applicant for development approval and at the discretion of the Planning Board, the provisions of this subsection may apply to the district(s) defined in this subsection E below.
- D. **Definitions.**

Development Rights – The legal claim to construct or develop specified land uses within specified densities and/or dimensional limits as granted by the City of Dover Zoning Ordinance.

Landscaped area – An area unoccupied by pavement or structures and open to the sky in either a landscaped or grassed condition. May include recreational fields, lawns, and public parks that do not possess significant conservation features.

Open Space – Land that is not built upon or substantially altered by human activity including open fields, such as meadows and farmland, and forest as well as undeveloped shorelands and waterbodies.

Receiving Area – A defined area within a TDR district to which development rights are transferred resulting in more efficient and intense use of suitable development sites.

Sending Area – A defined area within a TDR district from which development rights are transferred, resulting in the permanent preservation of lands possessing significant conservation features.

Transfer of Development Rights – The conveyance of the development rights of a parcel of land by deed or other legal instrument approved by the Planning Board to the developer of another parcel. Said legal instrument shall be recorded at the Strafford County Registry of Deeds.

TDR District – An area defined as a zoning overlay district, which includes a sending area and a receiving area for the purpose of transferring development rights from a parcel within the sending area to a parcel within the receiving area.

E. Districts Defined.

- (1) The Industrial TDR District is hereby determined to be any I-4 or B-4 Zoning districts as shown on the Zoning Map for the City of Dover, New Hampshire, adopted May 25, 1979. The sending Area is defined to be open space and related setbacks as defined by the City of Dover Wetland Protection District, Chapter 170-27.1, which are located in be any I-4 or B-4 Zoning districts. The receiving area is defined to be all remaining land in be any I-4 or B-4 Zoning districts.
- (2) The Residential TDR Districts are hereby determined to be Residential districts as shown on the Zoning Map for the City of Dover, New Hampshire, adopted May 25, 1979. The sending area is defined to be all R-40 or R-20 residential zoning districts. The receiving area is defined to be all non-R-40 or R-20 zoning districts East of the Spaulding Turnpike which allow residential development.

F. Procedural Requirements.

- (1) At the discretion of the Planning Board, an applicant for development approval within the receiving area of the defined Industrial TDR district may apply the performance standards specified in subsection G below in return for the acquisition of land or development rights from the sending area within the same TDR district. The performance standards for the Residential TDR district are outlined in subsection H below.
- (2) A certified boundary survey of the associated land in the sending area shall be submitted as a supplement to the site plan or subdivision plan for development within the receiving area.

- (3) The owner of the subject open space within the sending area of the TDR district shall sign all application materials as a co-applicant of the development application.
- (4) A sketch plan estimating layout of the development site and identifying the open space associated with the plan shall be submitted to the Planning Board for review at a regularly scheduled meeting. The Planning Board, within thirty (30) days of its review of the sketch plan, shall determine if waivers will be granted as allowed in Subsections G and H below. Following this decision, a final application is prepared. The final application for development approval shall be reviewed in accordance with the standard plan review process and subjected to all applicable development regulations, except as provided in this section.
- (5) A perpetual easement or restrictive covenant shall be recorded at the Strafford County Registry of Deeds that preserves the designated open space within the sending area. Said easement or covenant may allow for the continuance of existing residential and agricultural activities, and may allow for utility and access crossings in accordance with subsection I below. The designation of the land protection agency to hold the easement shall be approved by the Planning Board.

G. Industrial Performance Standards.

- (1) Land within a sending area, when surveyed, approved by the Planning Board and preserved by easement or covenant as specified in subsection F above, may be counted for the open space requirement for a development site in a receiving area. The amount of land preserved in a sending area shall equal or exceed the open space requirement for the development site, but in no case be less than one (1) acre. Notwithstanding, development sites within the I-4 and B-4 zoning districts shall maintain open space or landscaped area on at least ten (10) percent of the site. The design of the development site shall locate the open space or landscaped area to maximize the aesthetic value of the site.
- (2) The minimum lot size requirement may be waived by the Planning Board for land subjected to the transfer of development rights.
- (3) The minimum frontage requirement may be waived by the Planning Board for land subjected to the transfer of development rights provided that paved access to all developed areas suitable for emergency vehicles is approved by the Planning Board.
- (4) Setbacks for parking, paved areas, and buildings may be waived by the Planning Board, and be consistent with the intent to promote intensive development of suitable development sites. Notwithstanding, buildings shall be at least 150 feet from residential structures that exist on the date of enactment of the I-4 and B-4 Zoning districts, and 75 feet from the lot line of a disagreeing residential abutter.

- (5) The developer shall record covenants that address architectural considerations for structures, signage and lighting, that are designed to promote the highest possible aesthetic quality of the development site.
- (6) A landscaping plan shall be submitted with a development application that depicts landscaping or open space around the perimeter of the site, near the proposed buildings, and within the parking lot that promotes the highest possible aesthetic quality of the development.

H. Residential Performance Standards.

- (1) For land in the sending district to be eligible to transfer development rights, it must be a parcel of at least 5 acres, and developable under the existing land use regulations.
- (2) Land within a sending area, when surveyed, approved by the Planning Board and preserved by easement or covenant as specified in subsection F above, may be counted for the minimum lot size requirement for a development site in a receiving area. The amount of land preserved in a sending area shall equal or exceed the minimum lot size requirement for the sending site.
- (3) The square footage being transferred shall be divided by the minimum lot size needed in the receiving zone, or by 5000 square feet, whichever is larger to determine the transferred right.
- (4) The minimum lot size requirement may be waived by the Planning Board for land subjected to the transfer of development rights.
- (5) The minimum frontage requirement may be waived by the Planning Board for land subjected to the transfer of development rights provided that paved access to all developed areas suitable for emergency vehicles is approved by the Planning Board.
- (6) Any other provision in this chapter to the contrary, the density or intensity of development of a receiving parcel may be increased by the transfer of development rights so long as the increase in density or intensity:
 - a. Is consistent with the Master Plan
 - b. Is not incompatible with the land uses on neighboring lots.

I. Conditional Uses.

The Planning Board may grant conditional use permits to allow streets, roads, utilities, or other infrastructure improvements to cross wetlands within the receiving area of the TDR District, provided said infrastructure is essential to the productive use of land within the receiving area of a TDR District, and further provided that no possible location exists for said infrastructure in non-wetland areas.

**DULUTH NATURAL AREAS PROGRAM
CITY OF DULUTH, MINNESOTA**

Commentary

Duluth's Natural Areas Program provides a means by which large, ecologically significant areas of relatively pristine land owned by the city (or those volunteered by private landowners) may be permanently conserved. Any citizen can nominate a city-owned tract of land, or their own land; nominated parcels are then surveyed for appropriateness of inclusion (based on measures of ecological or environmental significance to the region). Upon initial approval, nominators have one year to complete a management plan for the parcel. The program aims to set aside Duluth's most pristine lands before they come under development pressure.

Ordinance

Establishing Procedures

02-036-O REPLACEMENT

ORDINANCE NO. _____

AN ORDINANCE CREATING DULUTH NATURAL AREAS PROGRAM AND ESTABLISHING PROCEDURES WITH REGARD THERETO, AMENDING CHAPTER 2 OF THE DULUTH CITY CODE, 1959, AS AMENDED, ADDING A NEW ARTICLE XXIX THERETO.

BY COUNCILOR STENBERG:

The city of Duluth does ordain:

Section 1. That Chapter 2 of the Duluth City Code, 1959, as amended, is hereby amended to add a new Article XXIX which reads as follows:

Article XXIX. Duluth Natural Areas Program.

Sec. 2-152. Statement of Purpose.

The city council finds that the city of Duluth is the owner of a substantial number of tracts of real estate, both inside and outside the city, some of which are of special or unique ecological or environmental significance to the community, which properties should be considered for conservation designation in order to protect those values. Said council further finds that there may be other tracts of land in private ownership or owned by other governmental entities which should be similarly protected if the cooperation of those owning such tracts can be secured. The purpose of this article is to create a program to protect and preserve the natural heritage of the Duluth area, which will include mechanisms for identifying those properties, whether owned by the city or by others, and for establishing a means to protect such properties from development or exploitation inconsistent with such values.

Sec. 2-153. Duluth Natural Areas Program Created.

There is hereby created for the city of Duluth a "Duluth natural areas program," hereafter referred to in this Article as the "program," for the purpose of implementing the objectives set forth in Section 2-152 above. Properties eligible for inclusion in the program shall include all city-owned tracts of land, whether such 2 tracts lie within the boundaries of the city or outside such boundaries, which meet the program guidelines and are approved for inclusion by resolution of the city council. In addition, all lands owned by others which meet the program guidelines, and the owners of which request that their property be included in the program and commit to donate the property interests necessary to implementing the program protections and the management plan, whether such tracts lie within the boundaries of the city or outside such boundaries, shall be eligible for inclusion in the program.

Sec. 2-154. Guidelines.

(a) Program guidelines to be adopted.

The city council shall, by resolution, adopt program guidelines setting forth standards and criteria for consideration of inclusion of various tracts of property in the program, and for selection and implementation of appropriate program protections and management plans for tracts so designated. The minimum standards and criteria for inclusion of a parcel in the program are:

- (1) The parcel is of special or unique ecological or environmental significance to the community as set out in Section 2-152, or its successor;
- (2) The parcel is eligible land as set out in this ordinance;
- (3) The parcel is one of the best remaining viable examples of a significant native plant communities area, or a special species area, or a natural water features area, or an important bird congregation area, or a geologic landform area.

These terms may be more specifically defined in the program guidelines;

- (4) Inclusion of the parcel in the program is in compliance with any applicable state or federal laws or regulations;

(b) Initial guidelines.

The initial program guidelines shall be developed by the environmental advisory council. Such initial program guidelines shall thereafter be reviewed by the planning commission and either recommended to the council for approval as presented by the environmental advisory council, recommended for approval as modified by the commission or recommended for disapproval by the council.

The council shall either approve the program guidelines as approved by the commission, adopt amended program guidelines or disapprove the program guidelines and return said program guidelines to the environmental advisory council for further review and recommendation. This process shall continue until the council approves program guidelines for the program;

(c) Amendments.

After the adoption of the initial program guidelines, the program guidelines may be amended at any time in accordance with the following process. Amendments to the program guidelines may be initiated by the environmental advisory council, by the planning commission or by the council. All proposed amendments shall be referred to the environmental advisory council for their review and recommendation. After review by the environmental advisory council, any such amendment, together with the its affirmative or negative recommendation, shall be referred to the planning commission for its review and recommendation. If recommended for approval by the planning commission, any such amendment shall be referred to the council for its review and approval or disapproval. Except that, upon the affirmative vote of a majority of the council, any proposed amendment which has been reviewed but not recommended for approval by either the environmental advisory council or by the planning commission may be reviewed and considered for approval by the council.

Sec. 2-155. Property Designation and Protections.

- (a) Provisional designation. After adoption of the initial program guidelines in conformance with the provisions of Sec. 2-154(b) above, specific tracts of land may be designated for inclusion in the program in conformance with the procedures set forth in the program guidelines. Such designation shall be provisional in nature, subject to finalization as provided for in subsection (b) below and shall be accomplished by resolution. Such designation shall only be allowable with regard to tracts, which meet or exceed the criteria established in the program guidelines and the resolution designating each tract shall include findings of fact setting forth the elements of the criteria met by each such tract. The designation of any tract for inclusion in the program under this subsection shall not be effective and shall be deemed to be provisional unless and until, within one year of such provisional designation, the specified program protections have been imposed or implemented and a management plan, as described in the program guidelines, has been approved by the council. If the specified program protections have not been imposed or implemented or a management plan has not been approved within said one year period, the provisional designation shall terminate. Provided, however, that if the applicant petitions the planning commission for an extension of time to allow imposition or implementation of the program protections or the management plan or both, which petition is filed in sufficient time for the planning commission to act prior to the expiration of such provisional designation and is based upon good cause shown, not attributable to the applicant, the planning commission may, by resolution approve an extension of the provisional designation for a period of up to one additional year.
- (b) Completion of designation process. After a tract of land has been provisionally designated as provided for in subsection (a) above, the council shall, by resolution or, if necessary to implement the program protections and the management plan, by ordinance approve the program protections deemed appropriate for the

designated tract from those provided for in Section 2-156 below and, if implementation of such program protections are within the control of the city, shall authorize, impose or implement such protections on such tract. In addition said resolution or ordinance shall also approve a management plan to be applied to such property along with authorizing whatever action is necessary to implement that management plan;

- (c) Process. The provisional designation of any tract and the approval of the program protections and the management plan for such tract shall be accomplished following the same procedures as those established for proposed amendments to the program guidelines set forth in Section 2-154(c) above. Upon completion of the designation process and the adoption of the appropriate program protections and management plan for any tract, the designation of said tract shall be deemed to be final and complete;
- (d) If the program administrator determines that a substantial change is needed in the management plan, the management plan may be amended pursuant to the same process by which it was established.

Sec. 2-156. Program Protections

The resolution or ordinance designating any tract for inclusion in the program shall specify what level of program protections shall be applied to each such designated tract. Protections for designated tracts, including the granting of a conservation easement or inclusion in a state preservation program, shall be in one of the following forms and shall be implemented by ordinance or resolution as required by law, the approval of which ordinance or resolution shall require the affirmative vote of seven councilors. Any such designation or conveyance shall be subject to any and all limitations on the title held by the owner of such property at the time of such designation unless and until such limitations are later modified or eliminated in accordance with applicable law:

- (a) By resolution, the council may declare its intent to hold such tract in perpetuity for the benefit of the city's residents and, at its option, designating what, if any, development of the tract will be permitted; any property so designated may be conveyed or used in contravention with the terms of this designation only upon the affirmative vote of eight councilors;
- (b) By ordinance, dedicate an easement in favor of the general public over such tract generally preserving such tract in the condition it is in at the time of such dedication and limiting the uses to which the property may be put; provided, however, that the provisions preserving the property and limiting the use thereof may, by the dedicatory ordinance, be limited to allow such other uses as the council may deem advisable and set forth the terms and conditions under which such other uses may be permitted;
- (c) By ordinance, convey such tract or any interest in said tract held by the city to the state of Minnesota or to such other qualified entity as appropriate for the

purpose of preserving such tract in the condition it is in at the time of such conveyance;

- (d) By resolution, accept conveyance of any such tract or any portion thereof or of any other interest therein, or to accept a conservation easement over such property meeting the requirements of Minnesota Statutes, Chapter 84C and Section 170(h) of the Internal Revenue Code of 1986, as amended from the owner thereof and, subject to the title or deed of conservation easement received by the city, by resolution or ordinance as appropriate implement any of the protections set forth in paragraphs (a) through (c) above with regard thereto.

Sec. 2-157. Program Administrator.

The director of the department of planning and development is hereby designated as the program administrator for the program. The program administrator shall be responsible to provide all services necessary to the environmental advisory council, the planning commission and the council necessary to the performance of their functions under this article and under the program guidelines, to implement all aspects of the program including overseeing the implementation of the protections for properties designated under the program and implementation of the management program, to the extent that such implementation is the responsibility of the city, for maintaining all program records and for performing such other responsibilities as are set forth, from time to time, in the program guidelines.

Section 2. That this ordinance shall take effect 30 days from and after its passage and publication.

STATEMENT OF PURPOSE: The purpose of this ordinance is to establish the Duluth natural areas program to create a structure in which that program will operate and to authorize a process for establishing and modifying program guidelines by resolution.

The reason for creating the program is to attempt to insure that areas of unique environmental value in the city will be preserved for the benefit of future generations of Duluthians. The program will attempt to protect these resources not only from damage or destruction from development but also from diminution through overuse.

In order to qualify for designation under the program, the resources sought to be protected must be in a substantially undisturbed natural state and must represent a unique resource characteristic of the Duluth area. The land most likely for designation is city-owned land within the city itself that contain resources in this category though privately-owned land which a private owner wishes to have included in the program will also be eligible. While it is not anticipated that it will occur often, city land located outside the boundaries of the city itself would also eligible for designation.

The ordinance contemplates a two-stage process for designation. In the first phase, property, which was proposed for inclusion, would be reviewed first by the

environmental advisory council for the purpose of evaluating its environmental qualifications, then by the planning commission to review how designation would fit into the overall land use planning objectives of the city. The recommendations of those bodies are then considered by the city council which makes the decision as to whether the subject property meets the program criteria as set forth in the guidelines and therefore should be included in the program.

If the council approves inclusion of the property in the program, the designation is, at this point, provisional, subject to the second phase of the approval process. The second phase involves the development of a management plan for the subject property and the determination of the most appropriate protections to be imposed on it. The protections could range from simple designation along with approval of a management plan. The management plan and the protections determination would follow the same approval process as the eligibility determination, with the city council making the final determination. Only after the management plan and protections are approved is the designation final.

The program guidelines which set up the criteria for inclusion in the program and for the contents of the management plan are subject to approval by resolution after going through the same review process as is involved in designation and in adoption of the management plan and the protections.

The ordinance also creates the position of program administrator who is responsible for the administration of the ordinance and the lands designated under it. This role is assigned to the director of the department of planning and development.

RIDGELINE PROTECTION OVERLAY ZONE TOWN OF AVON, CONNECTICUT

Commentary

This ridgeline overlay district was adopted to prevent erosion and to preserve environmental attributes including groundwater quality and recharge and wildlife habitat. The overlay provides that a setback area from the ridgeline must be designated by a qualified professional and recorded on a map prepared by the town.

Ordinance

Section IX

Special Regulations

5. Ridgeline Protection Overlay Zone

1. **Purpose.** The purpose of this section is to protect Trap Rock Ridges in order to preserve their unique environmental attributes, their groundwater recharge function, and the visual and historic assets of these distinctive ridge-line areas.

2. **Definitions**

For the purpose of applying the provisions of this section, the terms below shall be defined as follows:

ALTERATION – A change or rearrangement in the structural parts of a building, the movement of all or any part thereof, or the substantial reconstruction thereof, in order to produce a substantial change in appearance, character, or construction. It also means an enlargement, whether by increase in height, coverage, volume, or floor area.

BUILDING – Any structure other than (A) a facility as defined in Section 16-50i of the Connecticut General Statutes or (B) structures of a relatively slender nature compared to the buildings to which they are associated, including but not limited to chimneys, flagpoles, antennas, utility poles, and steeples, provided such structures are accessory to a building or use permitted by these regulations and not the principal use or structure on the lot.

CLEAR-CUTTING – The harvest of timber in a fashion which removes from any 200-square-foot or larger area all or substantially all trees measuring 2 inches or more in diameter at a height of 4 feet.

DEVELOPMENT – The construction, reconstruction, alteration, or expansion of a building equal to or greater than 100 square feet in area.

PASSIVE RECREATION – Nonmotorized recreation not requiring development as defined herein, nor requiring any clear-cutting or alteration of the existing topography, nor any activity regulated pursuant to this section. Such passive recreation shall include but not be limited to hiking, bicycling, picnicking, and bird-watching.

QUARRYING – The removal, excavation, processing, or grading of stone, fill, or other earth products, regardless of the methods utilized (e.g., blasting, crushing, excavation equipment). Earth that is to be removed as necessary to construct a basement for a single-family home or regrading which may be necessary to install an on-site subsurface sewage disposal system shall not be considered quarrying. Any other removal shall be subject to all other pertinent sections of this regulation.

RIDGELINE – The line on a trap rock ridge created by all points at the top of a 50 percent or greater slope (2 horizontal for each vertical unit of distance), which slope is maintained for a distance of at least 50 horizontal feet measured perpendicular to the contours of the slope, and which consists of surficial basalt geology. All slopes disturbed by human intervention shall be measured as they existed immediately prior to such disturbance, as best such pre-existing conditions can be determined by available topographic maps or other records.

RIDGELINE SETBACK AREA – The area bounded by (B) a line that parallels and is placed a horizontal distance of 150 feet off the more wooded side of all ridgelines as defined herein and (B) that lowest contour line created where less than a 50 percent slope (2 horizontal for each vertical unit of distance) exists for a distance of 50 horizontal feet on the rockier side of all ridgelines as defined herein. This area is generally shown as an overlay to the official Zoning Map.

SELECTIVE TIMBERING – The removal of no more than ten percent (10%) of the total number of living trees or no more than 10% of the total number of trees in excess of 6 inches in diameter within that portion of any ridgeline setback area located on the lot on which such removal is to occur. The ten percent limitation shall be cumulative from the effective date of these Ridgeline Protection Overlay Zone regulations.

TRAPROCK RIDGE – Talcott Mountain and Pond Ledge Hill

VISUAL IMPACT OBSERVATION POINTS – Off-site locations within the Town of Avon from which proposed activities within a ridgeline setback area may reasonably be expected to be visible.

3. **Delineation of Regulated Areas**

The Commission may prepare, for illustrative purposes, a map that generally and approximately delineates the ridgelines and ridgeline setback areas as defined herein. However, the precise location of the boundaries of ridge-

line setback areas shall be determined and governed by measurements made on the affected properties in accordance with the definitions in Subsection 2. The actual presence and location of ridgeline setback areas as determined by qualified professionals shall govern the applicability of this regulation to a proposed development. A Qualified professionals@ shall include, as relevant, licensed land surveyors and geologists. In cases where a landowner or applicant disputes the designation of any land as a regulated area, he or she shall have the burden of proving that designation inapplicable. The Zoning Enforcement Officer or any other agent of the Commission may make a determination based on mapping and field observation that the area in question does not meet the criteria required to be within the ridgeline setback area and, therefore, does not require a special permit from the Commission.

4. **Special Exception Requirements**

In addition to any other permit, special exception or other approval required under these regulations, a special exception shall be required for any development or clear-cutting activities proposed for or occurring within a ridgeline setback area, except that a special exception under this section shall not be required for the following activities:

- a. Emergency work necessary to protect life or property.
- b. Activities for which a complete zoning application was filed prior to the effective date of the Ridgeline Protection Overlay Zone regulations, provided that such application was approved and the approval remains in effect.
- c. Selective timbering.
- d. Passive recreation.
- e. Building additions that cumulatively do not exceed a building footprint of 1,500 square feet in area, measured from the date of adoption of this amendment, when added to homes, which were in existence as of the effective date of this regulation. Clear-cutting shall be allowed without special permit only in the area required to accommodate the actual footprint of the proposed addition plus an area extending 15 feet from the outside walls of the addition. This exemption shall not apply to any homes that have been constructed as part of a prior subdivision approval granted by the Commission that contained conditions placing limits on tree clearing and/or requiring the preservation of trees.
- f. Maintenance of property which may include tree trimming and/or the cutting of a select number of trees to maintain views which were in effect as of the date of the adoption of this regulation. In an effort to document existing views, a property owner may present photographic evidence or survey data to the Office of the Town Planner. This information along with

any other data that a property owner may choose to provide shall be kept on file in the Office of the Town Planner. This documentation may be provided at the option of the property owner.

5. Standards For Granting a Special Exception For Activities Within Ridgeline Setback Areas

In addition to the requirements of Article VIII of the Zoning Regulations, the Commission shall require compliance with the following:

- a. That adequate safeguards have been taken to minimize the visual impact of proposed activities as viewed from public highways, public parks, or other areas accessible to the general public. Visual impacts may include but are not limited to unnatural gaps, cuts, projections, or other obviously artificial alterations of existing natural tree lines, ridgelines, prominent topographic features, or rock formations; the use of materials which by their color, reflectiveness, finish, size, or orientation disrupt the natural or historic character of a ridgeline; the size, height, shape, and location of buildings; the height, intensity, coverage, and glare from proposed lights. Such safeguards may include but are not limited to (a) restricting the removal of trees and other vegetation, (b) requiring supplemental landscaping, (c) restricting structure colors and reflectivity of windows and roofs, (d) requiring buffers and setbacks from ridgeline, (e) restricting exterior lighting, (f) limiting the height and mass of structures, and (g) requiring utilities to be installed below ground. The Commission may require that clear-cutting occur in a staggered or other pattern that reduces the visual impact of such cutting and may further require that clear-cutting be staged over a period of time to allow for re-growth of remaining vegetation. Additionally, the Commission may regulate the location, and require the relocation, of proposed buildings to reduce visual impact. Whenever possible, development and clear-cutting within 75 feet of any ridgeline, as defined in these Ridgeline Protection Overlay Zone Regulations, shall be avoided. The Commission may also require the installation of flags, balloons, or other on-site markers prior to a decision on any application in order to allow evaluation of visual impacts as seen from various vantage points.
- b. That the viability of the area as a wildlife resource (habitat, breeding ground, foraging area, migratory pathway, etc.) is protected. Steps to protect these areas may include but are not limited to restricting the size of lawn areas or other clearings; restricting clear-cutting to certain seasons of the year or to certain areas, patterns, methods of removal; or applying other restrictions that it deems necessary to minimize the impact on wildlife and wildlife habitats. The Commission may require an analysis of the potential impacts of the proposed activity on wildlife, such analysis to be prepared by a qualified biologist.

- c. That the groundwater quality and recharge potential of the area is preserved. The Commission may require an analysis of the possible impacts of the proposed activity on groundwater quality and recharge. In order to minimize such impacts, the Commission may require restrictions on the size or location of septic systems; the use of biofilters, detention ponds, retention ponds, and other methods of storm water management that protect surface and subsurface waters; the regulation of the storage, handling or usage of hazardous materials or waste, including but not limited to fertilizers, pesticides and herbicides; and any other restrictions or limitations which the Commission may reasonably deem appropriate.
- d. That areas of archaeological and historic importance have been identified and adequate steps have been taken to preserve and/or record these areas.
- e. That the stability of the ridgeline is protected and that erosion potential is kept to a minimum by minimizing changes to the existing topography, preserving existing vegetation, requiring the re-vegetation of disturbed areas, and requiring the installation and maintenance of sedimentation and erosion control structures as needed. Steps to protect the stability of the ridgeline may include but are not limited to requiring retaining walls or other methods to minimize the cutting and filling of slopes; requiring reforestation or landscaping of quarries upon reaching finished grade or of other areas disturbed by development or clear-cutting; and requiring that driveways, roads, and other improvements requiring grading shall be approximately parallel to existing contours.

6. **Site Plan Requirements**

An application for any Special Exception required under subsection 4 and 5, foregoing, shall be accompanied by the following site plan information. The Commission may waive the requirement for all or a portion of this information upon a finding that it is not essential to determining compliance with the Special Exception Criteria contained in Section 5.

- a. The applicant shall submit a plan showing the proposed or existing location of each structure, road, driveway, and other man-made feature on the lot. The plan shall show the maximum first-floor topographic elevation and the maximum elevation of the highest point of each building and structure.
- b. The applicant, in consultation with the Town Planner, shall provide a list of visual impact observation points. These points shall be located through mapping and field observation. The applicant shall place aerial markers at points corresponding to the highest point of each proposed building and structure. The applicant shall provide photographs taken from visual impact observation points of the development site with aerial markers in place. The Commission shall verify the visual impact areas and may add other areas to be analyzed for visual impact in addition to proposed structure sites, including sites of proposed or existing roads, driveways, and other man-made features.

- c. The applicant shall provide a map showing the location of all existing trees having a diameter of 6 inches or more at a height of 4 feet. The map shall be prepared by a licensed land surveyor and shall be certified to A-2 standards of accuracy.
- d. Where existing vegetation is insufficient to provide, in the judgment of the Commission, adequate visual screening of visual impact areas on a particular lot, the applicant shall prepare a landscaping plan specifying the location, number, type, species, and size of plant and tree material that will be added to the lot. The plan shall be designed to screen those portions of the visual impact areas that will be observable from the visual impact observation points.
- e. The applicant shall submit a plan with appropriate graphics and color renderings, specifying methods and mechanisms of minimizing the visual impacts of existing and proposed structures, roads, driveways, and other man-made features. Such methods and mechanisms shall include but are not limited to the following:
 - (1) Restrictions on structure and roof colors to earth tones, which shall include a range of colors including brown and black, but shall not include bright or bold colors.
 - (2) Restrictions on the height of structures whenever the height is expected to exceed the height of the existing or proposed vegetation screening it from the visual impact observation points at a point in time 5 years from the time of the installation of plant material.

7. Prohibited Operations and Uses in Ridgeline Setback Areas

The following shall be prohibited in the ridgeline setback areas.

- a. Quarrying.
- b. Lighting poles 10 feet or more in height. All lights shall be designed to prevent excessive glare off the property.
- c. Air conditioning, heating, or ventilating equipment that projects above the plane of any roof surface, other than accessory chimneys.

8. Financial Security

The Commission may require, as a condition of approval of any application for activities within a ridgeline setback area, that the permittee post a bond with surety, letter of credit, or other form of financial security acceptable to the Commission, in order to assure compliance with the provisions of these regulations and with the terms and conditions of the approval.

NEW YORK TOWN LAW, SECTIONS 261, 262, 263

Sec. 261. Grant of power; appropriations for certain expenses incurred under this article. For the purpose of promoting the health, safety, morals, or the general welfare of the community, the town board is hereby empowered by local law or ordinance to regulate and restrict the height, number of stories and size of buildings and other structures, the percentage of lot that may be occupied, the size of yards, courts, and other open spaces, the density of population, and the location and use of buildings, structures and land for trade, industry, residence or other purposes; provided that such regulations shall apply to and affect only such part of a town as is outside the limits of any incorporated village or city; provided further, that all charges and expenses incurred under this article for zoning and planning shall be a charge upon the taxable property of that part of the town outside of any incorporated village or city. The town board is hereby authorized and empowered to make such appropriation as it may see fit for such charges and expenses, provided however, that such appropriation shall be the estimated charges and expenses less fees, if any, collected, and provided, that the amount so appropriated shall be assessed, levied and collected from the property outside of any incorporated village or city. Such regulations may provide that a board of appeals may determine and vary their application in harmony with their general purpose and intent, and in accordance with general or specific rules therein contained.

Sec. 262. Districts. For any or all of said purposes the town board may divide that part of the town which is outside the limits of any incorporated village or city into districts of such number, shape and area as may be deemed best suited to carry out the purposes of this act; and within such districts it may regulate and restrict the erection, construction, reconstruction, alteration or use of buildings, structures or land. All such regulations shall be uniform for each class or kind of buildings, throughout such district but the regulations in one district may differ from those in other districts.

Sec. 263. Purposes in View. Such regulations shall be made in accordance with a comprehensive plan and designed to lessen congestion in the streets; to secure safety from fire, flood, panic and other dangers; to promote health and general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to make provision for, so far as conditions may permit, the accommodation of solar energy systems and equipment and access to sunlight necessary therefore; to facilitate the practice of forestry; to facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements. Such regulations shall be made with reasonable consideration, among other things, as to the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such municipality.

CONNECTICUT GENERAL STATUTES, SECTION 8.2**Sec. 8-2. Regulations.**

- (a) The zoning commission of each city, town or borough is authorized to regulate, within the limits of such municipality, the height, number of stories and size of buildings and other structures; the percentage of the area of the lot that may be occupied; the size of yards, courts and other open spaces; the density of population and the location and use of buildings, structures and land for trade, industry, residence or other purposes, including water-dependent uses as defined in section 22a-93, and the height, size and location of advertising signs and billboards. Such bulk regulations may allow for cluster development as defined in section 8-18. Such zoning commission may divide the municipality into districts of such number, shape and area as may be best suited to carry out the purposes of this chapter; and, within such districts, it may regulate the erection, construction, reconstruction, alteration or use of buildings or structures and the use of land. All such regulations shall be uniform for each class or kind of buildings, structures or use of land throughout each district, but the regulations in one district may differ from those in another district, and may provide that certain classes or kinds of buildings, structures or uses of land are permitted only after obtaining a special permit or special exception from a zoning commission, planning commission, combined planning and zoning commission or zoning board of appeals, whichever commission or board the regulations may, notwithstanding any special act to the contrary, designate, subject to standards set forth in the regulations and to conditions necessary to protect the public health, safety, convenience and property values. Such regulations shall be made in accordance with a comprehensive plan and in adopting such regulations the commission shall consider the plan of conservation and development prepared under section 8-23. Such regulations shall be designed to lessen congestion in the streets; to secure safety from fire, panic, flood and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population and to facilitate the adequate provision for transportation, water, sewerage, schools, parks and other public requirements. Such regulations shall be made with reasonable consideration as to the character of the district and its peculiar suitability for particular uses and with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout such municipality. Such regulations may, to the extent consistent with soil types, terrain, infrastructure capacity and the plan of conservation and development for the community, provide for cluster development, as defined in section 8-18, in residential zones. Such regulations shall also encourage the development of housing opportunities, including opportunities for multifamily dwellings, consistent with soil types, terrain and infrastructure capacity, for all residents of the municipality and the planning region in which the municipality is located, as designated by the Secretary of the Office of Policy and Management under section 16a-4a. Such regulations shall also promote housing choice and economic

diversity in housing, including housing for both low and moderate income households, and shall encourage the development of housing which will meet the housing needs identified in the housing plan prepared pursuant to section 8-37t and in the housing component and the other components of the state plan of conservation and development prepared pursuant to section 16a-26. Zoning regulations shall be made with reasonable consideration for their impact on agriculture. Zoning regulations may be made with reasonable consideration for the protection of historic factors and shall be made with reasonable consideration for the protection of existing and potential public surface and ground drinking water supplies. On and after July 1, 1985, the regulations shall provide that proper provision be made for soil erosion and sediment control pursuant to section 22a-329. Such regulations may also encourage energy-efficient patterns of development, the use of solar and other renewable forms of energy, and energy conservation. The regulations may also provide for incentives for developers who use passive solar energy techniques, as defined in subsection (b) of section 8-25, in planning a residential subdivision development. The incentives may include, but not be limited to, cluster development, higher density development and performance standards for roads, sidewalks and underground facilities in the subdivision. Such regulations may provide for a municipal system for the creation of development rights and the permanent transfer of such development rights, which may include a system for the variance of density limits in connection with any such transfer. Such regulations may also provide for notice requirements in addition to those required by this chapter. Such regulations may provide for conditions on operations to collect spring water or well water, as defined in section 21a-150, including the time, place and manner of such operations. No such regulations shall prohibit the operation of any family day care home or group day care home in a residential zone. Such regulations shall not impose conditions and requirements on manufactured homes having as their narrowest dimension twenty-two feet or more and built in accordance with federal manufactured home construction and safety standards or on lots containing such manufactured homes which are substantially different from conditions and requirements imposed on single-family dwellings and lots containing single-family dwellings. Such regulations shall not impose conditions and requirements on developments to be occupied by manufactured homes having as their narrowest dimension twenty-two feet or more and built in accordance with federal manufactured home construction and safety standards which are substantially different from conditions and requirements imposed on multifamily dwellings, lots containing multifamily dwellings, cluster developments or planned unit developments. Such regulations shall not prohibit the continuance of any nonconforming use, building or structure existing at the time of the adoption of such regulations. Such regulations shall not provide for the termination of any nonconforming use solely as a result of nonuse for a specified period of time without regard to the intent of the property owner to maintain that use. Any city, town or borough which adopts the provisions of this chapter

may, by vote of its legislative body, exempt municipal property from the regulations prescribed by the zoning commission of such city, town or borough; but unless it is so voted municipal property shall be subject to such regulations.

- (b) In any municipality that is contiguous to Long Island Sound the regulations adopted under this section shall be made with reasonable consideration for restoration and protection of the ecosystem and habitat of Long Island Sound and shall be designed to reduce hypoxia, pathogens, toxic contaminants and floatable debris in Long Island Sound. Such regulations shall provide that the commission consider the environmental impact on Long Island Sound of any proposal for development.
- (c) In any municipality where a trap rock ridge, as defined in section 8-1aa, or an amphibolite ridge, as defined in section 8-1aa, is located the regulations may provide for development restrictions in ridgeline setback areas, as defined in said section. The regulations may restrict quarrying and clear cutting, except that the following operations and uses shall be permitted in ridgeline setback areas, as of right: (1) Emergency work necessary to protect life and property; (2) any nonconforming uses that were in existence and that were approved on or before the effective date of regulations adopted under this section; and (3) selective timbering, grazing of domesticated animals and passive recreation.

ILLINOIS LOCAL PLANNING AND TECHNICAL ASSISTANCE ACT, ACT 662

Commentary

The Illinois legislature adopted the Local Planning and Technical Assistance Act in 2002. The law's purpose is to provide technical assistance to local governments for the development of local planning ordinances, promote and encourage comprehensive planning, promote the use of model ordinances, and to support planning efforts in communities with limited funds. The Department of Commerce and Community Affairs is authorized to provide technical assistance grants to be used by local governmental units to "develop, update, administer, and implement comprehensive plans, subsidiary plans, land development regulations . . . that promote and encourage the principles of comprehensive planning." A particularly important tool is found in § 25, which sets forth the specific elements that must be included in a plan for it to qualify for grant money. The Local Planning and Technical Assistance Act does not mandate comprehensive planning. However, the grant money provides a strong incentive for communities to engage in planning.

Act 662

Sec. 1. Short Title. This Act may be cited as the Local Planning Technical Assistance Act.

Sec. 5. Purposes. The purposes of this Act are to:

- (1) Provide technical assistance to Illinois local governments that request it for the development of local planning ordinances and regulations.
- (2) Encourage Illinois local governments to engage in planning, regulatory, and development approaches that promote and encourage comprehensive planning.
- (3) Prepare and distribute model ordinances, manuals, and other technical publications that promote and encourage comprehensive planning.
- (4) Research and report upon the results and impact of activities funded by the demonstration grants.
- (5) Support local planning efforts in communities with limited financial means.
- (6) Support planning efforts that include one or more units of local government or planning agencies working together.

Sec. 10. Definitions. In this Act:

"Comprehensive plan" means a regional plan adopted under Section 5-14001 of the Counties Code, an official comprehensive plan adopted under Section 11-12-6 of the Illinois Municipal Code, or a local land resource management plan adopted under

Section 4 of the Local Land Resource Management Planning Act.

“Department” means the Department of Commerce and Community Affairs.

“Land development regulation” means any development or land use ordinance or regulation of a county or municipality including zoning and subdivision ordinances.

“Local government” or “unit of local government” means any city, village, incorporated town, or county.

“Subsidiary plan” means any portion of a comprehensive plan that guides development, land use, or infrastructure for a county or municipality or a portion of a county or municipality.

Sec. 15. Technical Assistance Grants

The Department may make grants to units of local government to develop, update, administer, and implement comprehensive plans, subsidiary plans, land development regulations, development incentives, market feasibility studies, and environmental assessments that promote and encourage the principles of comprehensive planning. Comprehensive planning includes appropriately and proportionally weighing the elements listed in Section 25 of this Act and including them within the comprehensive plan.

The Department may adopt rules establishing standards and procedures for determining eligibility for the grants, regulating the use of funds under the grants, and requiring periodic reporting of the results and impact of activities funded by the grants. No individual grant under this Act may have duration of more than 24 months.

The Department, in the determination of grantees, may also seek an even balance of grants within metropolitan regions.

Sec. 20. Model Ordinances and Technical Publications

The Department may prepare model ordinances, manuals, and other technical publications that are founded upon and promote comprehensive planning. The Department may make all possible use of existing model ordinances, manuals, and other technical publications that promote and encourage comprehensive planning and that were prepared by regional planning agencies and commissions, councils of government, and other organizations.

The Department may employ or retain private not-for-profit entities, regional planning agencies and commissions, councils of government, and universities to advise, prepare, or conduct the preparation of the model ordinances, manuals, and other technical publications.

The Department may distribute any model ordinances, manuals, and other technical publications prepared under this Section to all counties and municipalities in this State, regional planning agencies and commissions in this State, the Illinois State Library, all public libraries in this State, and to other organizations and libraries at the Department’s discretion.

Sec. 25. Use of Technical Assistance Grants

- (a) Technical assistance grants may be used to write or revise a local comprehensive plan. A comprehensive plan funded under Section 15 of this Act must address, but is not limited to addressing, each of the following elements:
- (1) Issues and opportunities. The purpose of this element is to state the vision of the community, identify the major trends and forces affecting the local government and its citizens, set goals and standards, and serve as a series of guiding principles and priorities to implement the vision.
 - (2) Land use and natural resources. The purpose of this element is to translate the vision statement into physical terms; provide a general pattern for the location, distribution, and characteristics of future land uses over a 20-year period; and serve as the element of the comprehensive plan upon which all other elements are based. The land use element must be in text and map form. It must include supporting studies on population, the local economy, natural resources, and an inventory of existing land uses.
 - (3) Transportation. The purpose of this element is to consider all relevant modes of transportation, including mass transit, air, water, rail, automobile, bicycle, and pedestrian modes of transportation; accommodate special needs; establish the framework for the acquisition, preservation, and protection of existing and future rights-of-way; and incorporate transportation performance measures.
 - (4) Community facilities (schools, parks, police, fire, and water and sewer). The purpose of this element is to provide community facilities; establish levels of service; ensure that facilities are provided as needed; and coordinate with other units of local government that provide the needed facilities.
 - (5) Telecommunications infrastructure. The purpose of this element is to coordinate telecommunications initiatives; assess short-term and long-term needs, especially regarding economic development; determine the existing telecommunications services of telecommunications providers; encourage investment in the most advanced technologies; and establish a framework for providing reasonable access to public rights-of-way.
 - (6) Housing. The purpose of this element is to document the present and future needs for housing within the jurisdiction of the local government, including affordable housing and special needs housing; take into account the housing needs of a larger region; identify barriers to the production of housing, including affordable housing; assess the condition of the local housing stock; and develop strategies, programs, and other actions to address the needs for a range of housing options.
 - (7) Economic development. The purpose of this element is to coordinate local economic development initiatives with those of the State; ensure that adequate economic development opportunities are available; identify the

strategic competitive advantages of the community and the surrounding region; assess the community's strengths and weaknesses with respect to attracting and retaining business and industry; and define the municipality's and county's role.

- (8) Natural resources. The purpose of this element is to identify and define the natural resources in the community with respect to water, land, flora, and fauna; identify the land and water areas in relation to these resources; assess the relative importance of these areas to the needs of the resources; and identify mitigation efforts that are needed to protect these resources.
- (9) Public participation. This element must include a process for engaging the community in outreach; the development of a sense of community; a consensus building process; and a public education strategy.
- (10) Comprehensive plans may also include the following: natural hazards; agriculture and forest preservation; human services; community design; historic preservation; and the adoption of subplans, as needed. The decision on whether to include these elements in the comprehensive plan shall be based on the needs of the particular unit of local government.

(b) The purpose of this Section is to provide guidance on the elements of a comprehensive plan but not to mandate content.

Sec. 30. Consistency of Land Use Regulations and Actions with Comprehensive Plans

- (a) If a municipality or county is receiving assistance to write or revise a comprehensive plan, for 5 years after the effective date of the plan, land development regulations, including amendments to a zoning map, and any land use actions should be consistent with the new or revised comprehensive plan. "Land use actions" include preliminary or final approval of a subdivision plat, approval of a planned unit development, approval of a conditional use, granting a variance, or a decision by a unit of local government to construct a capital improvement, acquire land for community facilities, or both.
- (b) Municipalities and counties that have adopted official comprehensive plans in accordance with Division 12 of Article 11 of the Illinois Municipal Code or Section 5-14001 of the Counties Code may be eligible for additional preferences in State economic development programs, State transportation programs, State planning programs, State natural resources programs, and State agriculture programs.

Sec. 35. Educational and Training Programs

The Department may provide educational and training programs in planning, regulatory, and development practices and techniques that promote and encourage comprehensive planning, including, but not limited to, the use and application of any model ordinances, manuals, and other technical publications prepared by the Department.

The Department may employ or retain not-for-profit entities, regional planning agencies and commissions, and universities to operate or conduct, or assist in the operation or conduct of, the programs.

Sec. 40. Annual Report

- (a) The Department may, at least annually but more often at its discretion, report in writing to the Governor and General Assembly on:
- (1) The results and impacts of county and municipal activities funded by the grants authorized by this Act.
 - (2) The distribution of the grants.
 - (3) Model ordinances, manuals, and other technical publications prepared by the Department.
 - (4) Educational and training programs provided by the Department.
- (b) The report may also be provided to all counties and municipalities in this State, regional planning agencies and commissions in this State, the Illinois State Library, all public libraries in this State, and to other organizations and libraries upon request at the Department's discretion.

Sec. 45. Local Planning Fund

The Department may use moneys, subject to appropriation, in the Local Planning Fund, a special fund created in the State treasury, to implement and administer this Act. If funds are not appropriated, the Department is not required to carry forth the requirements of this Act but may, at its discretion, use funds from other sources.

EDITORS

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