



# **Growth Management Tools: A Summary for Planning Boards in Massachusetts**

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The MDC Division of Watershed Management presents these techniques as information for the towns within the Quabbin Reservoir, Ware River, and Wachusett Reservoir watersheds. It does not recommend any specific planning tool. Selection and adoption of growth management policies and implementing devices is a local decision. For further information, contact: Jeff Lacy, MDC Division of Watershed Management Quabbin Reservoir Field Office, Box 628, Belchertown, MA 01007; phone: (413) 323-6921 x 501; e-mail: [jeff.lacy@state.ma.us](mailto:jeff.lacy@state.ma.us). Copies of this publication and other information about the MDC Division of Watershed Management can be found at [www.state.ma.us/mdc/water.htm](http://www.state.ma.us/mdc/water.htm).

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## **Growth Management Tools: A Summary for Planning Boards in Massachusetts**

### **INTRODUCTION**

Many Massachusetts communities feel powerless to address the impacts of the accelerated residential and commercial growth rates experienced over recent decades. The adoption of local comprehensive plans and open space plans are vital steps in any long-term strategy to cope with these challenges. Even the best plans, however, are only effective if they are implemented through local bylaws, regulations, and policies that manage growth and allow communities to shape their futures. Adoption of these measures, many of which constrain the use of private land, is a test of political resolve.

Growth management (or “smart growth”) is an area of planning that has come into its own in the past thirty years, principally in response to the inefficient land use practices associated with suburban sprawl. Contrary to a common misconception, growth management does not accomplish, or attempt to accomplish, the end result of stopping growth; rather it influences the amount, rate, location, environmental effects, and character of new growth. Growth management has, in fact, become mainstream in the Commonwealth. Many Massachusetts municipalities have incorporated some of the tools listed in this paper into their zoning or general bylaws, subdivision regulations, wetlands or health regulations, and growth policies.

The purpose of this summary is to acquaint planning board members with a variety of methods successfully used elsewhere around the Commonwealth. Interested board members are encouraged to further research the more promising approaches in order to decide which might be appropriate and feasible for their community. See Appendix B for other sources of information and help. Town counsel review is recommended prior to any regulatory action.

Unless otherwise indicated at the end of each description, the tools listed below are adopted as zoning bylaws pursuant to M.G.L. c. 40A, § 5, including the required public hearing and two-thirds majority vote at town meeting.

## **PREDICTING FUTURE LAND USE PATTERNS AND IMPACTS**

### **Build-Out Analysis**

A Build-Out Analysis is a predictive process for estimating a community's total and school-aged population, number of housing units, commercial square footage, and remaining open space at some future point in time when all available land has been utilized in accordance with a town's existing land use regulations (zoning, subdivision, wetlands, etc.). The results are often presented in mapped form, and can be shocking, especially in a still-rural town with higher-density residential zoning and little protected open space. A Build-Out Analysis is often the catalyst for residents to think and act on planning and zoning issues, in particular the density and location of development.

The Massachusetts Executive Office of Environmental Affairs, in conjunction with Executive Order 418 and the Community Preservation Act, has prepared a computerized Build-Out Analysis for every community in the Commonwealth as well as a Build-Out Book to help explain the process. Many communities have or will update the EOEAs buildout through incorporation of locally specific detailed knowledge. (Study: does not require adoption or acceptance)

### **Cost of Community Services Studies**

Cost of Community Services Studies, sometimes referred to as fiscal impact studies, show how particular land uses in a town fare with respect to a ratio of municipal service costs over total revenues (primarily derived from local property taxes). A ratio of greater than 1.0 translates to a net loss for the town, while ratios of less than 1.0 indicate a net gain. The ratio is often presented in terms of dollar cost for each dollar paid (for example, for each \$1.00 of revenue generated, business property may cost \$0.48, residential \$1.16, and open land \$0.32). Municipal service costs include everything from highway maintenance to education, police protection, and the administrative costs of town government.

The results are different in each town, but generally it is found that commercial and industrial land uses have ratios of less than one, which is also true for undeveloped land. Many residential land uses are more complicated, having ratios both above and below one, depending on a host of variables. However, residential dwellings with one or more school-aged children are often found to be assessed at significantly less than would be necessary (at existing property tax rates) to fully cover their current demand on town services. In almost all cases the most insightful result of this kind of study is the revelation that privately held, undeveloped land, even if subject to

reduced taxation under the State's Chapter 61 abatement programs, more than pays for itself (creating, in fact, a surplus to subsidize other, more costly forms of land use).<sup>1</sup> The Massachusetts Executive Office of Environmental Affairs, in conjunction with Executive Order 418 and the Community Preservation Act, has prepared a Fiscal Impact Tool to help communities perform this type of analysis. (Study: does not require adoption or acceptance)

## **Census Data**

The direction a town is headed with respect to population and demographics can be foretold with some accuracy by reviewing census trends over the past ten or twenty years. The 2000 Census is now available and provides each community in the Commonwealth with data on changes since 1990. The information is particularly interesting when examined regionally. Census information also provides breakdowns by age-group, which can be helpful in estimating demand on schools and for senior housing. (Study: does not require adoption or acceptance)

## **CONTROLLING DENSITY**

### **Down-Zoning**

Down-Zoning (vs. Up-Zoning, below) reduces the allowable uses of land and/or increases the land area required to support a given development type or use. Down-Zoning may be advisable where density, intensity or type of use has created problems in the past, or for environmentally sensitive areas or lands important for their natural resource, historic, scenic, or recreational values. Examples would be the increase in the minimum lot size requirement for a single-family dwelling from one acre to three or a decrease in allowed lot coverage for commercial buildings. Residential Down-Zoning will reduce a town's buildout potential in terms of ultimate number of housing units and associated environmental impacts, traffic,

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<sup>1</sup> Most permanently protected open space is owned by either government (local, state or federal) or non-profit organizations. Therefore, while creating little demand on public services, these properties are tax-exempt and do not generally create any income either. There is compensation, however, for some state lands in Massachusetts. Payments in Lieu of Taxes (PILOT) for state-owned land (except MDC Division of Watershed Management property) is determined according to M.G.L. c 58, §§ 13-17 and distributed through a community's "Cherry Sheet." PILOT for MDC Division of Watershed Management land is calculated under M.G.L. c. 59, § 5G. The funds for the MDC/DWM PILOT come from the Massachusetts Water Resources Authority (MWRA); a key part of this legislation is that the amount due can never be less than the previous year, even if land valuations and/or tax rates decrease. As of Fiscal Year 2002, \$5 million is distributed annually to the towns within the MDC Watershed System.

population, school children, etc. Down-Zoning alone may still contribute to a lower-density form of sprawl. It is, however, often a predicate to a successful Open Space Design, Transfer of Development Rights, Purchase of Development Rights or Limited Development program (see below for details on these tools).

Down-Zoning is not to be confused with a “regulatory taking“ whereby private property is “taken“ without just compensation. This technique generally withstands legal challenges provided such an action furthers a legitimate public purpose (preferably as expressed in an adopted comprehensive growth management plan for the community), is not arbitrary or capricious, and leaves the property with some reasonable economic use.

### **Up-Zoning**

Up-Zoning, the opposite of Down-Zoning, permits more intensive land uses and/or requires less land area to support a given development type or use. More housing types and mixes of uses can be accommodated, and significant economies of scale are realized. The opportunity for increased density is an incentive to encourage development in appropriate areas for growth (e.g., public sewer/water service, near town centers, on land free from environmental or cultural constraints), thereby lessening development pressures elsewhere. Up-Zoning can be used hand in hand with Down-Zoning in a community to focus development in appropriate areas while limiting the intensity of growth in sensitive areas. Even this comprehensive approach can be challenging, as wholesale zoning changes will affect the rights of many property owners.

## **PRESERVING OPEN SPACE AND RURAL CHARACTER**

### **Open Space Design**

Open Space Design, also known as “cluster development” or “conservation subdivision design<sup>3</sup>,” allows for a concentration of infrastructure and housing on a

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<sup>2</sup> Each of these tools will result in permanently protected open space. The best way to assure the land will not be developed is through a recorded Conservation Restriction under M.G.L. c. 184, §§ 31-33.

<sup>3</sup> “Conservation Subdivision Design” is a further refinement of the Open Space Design concept that has great potential in Massachusetts. Randall Arendt of Rhode Island is a national advocate for this planning technique; for more information, visit the website [www.natlands.org](http://www.natlands.org), click on “Planning” and then “Growing Greener.” The Metropolitan Area Planning Council also has published The Conservation Subdivision Design Project: Booklet for Developing a Local Bylaw. It is available via the MAPC website at [www.mapc.org](http://www.mapc.org) by clicking on “Regional Planning” and then “CSD Project.”



portion of a parcel of land with the balance preserved as open space for recreation, conservation, agriculture or forestry. Many common elements of conventional zoning and subdivision control, such as large house lots, deep property line setbacks and unnecessarily wide roads, must be dispensed with in order to make this an effective tool. Unless density bonuses are offered, the number of housing units stays the same as in a conventional development, hence no reduction in the ultimate town buildout is achieved. The most salient benefit of this technique is a more harmonious relationship between residential development and the natural landscape.

Open Space Design is often difficult to use with satisfactory results in a rural area unless the underlying density is very low. It works well in suburbanizing towns, especially where town water and sewer services are available. In addition to the special permit under zoning, Open Space Design can be implemented “by right” through the local subdivision regulations; see Appendix A for more detail.

### **Transfer of Development Rights (TDR)**

TDR is similar to Open Space Design, except it operates on a town-wide or regional scale instead of a parcel scale. Development rights (to build houses, for example) are “transferred” from land in areas deemed worthy of protection (best agricultural soils, scenic, historic, environmentally sensitive, etc.) and applied to lands better suited for development (access to public sewer/water, near town center, etc). The “sending” zones then remain undeveloped while the “receiving” zones are developed more intensely. Like Open Space Design, this technique works best if the underlying density in the sending zones is low. However, problems can arise from routing too much density into the receiving areas (infrastructure overload, objections from existing residents), or from the lack of administrative staff to run the program. A community should have at least a town planner in order to implement a TDR program.

### **Purchase of Development Rights (PDR)**

A town may purchase land outright or acquire only the development rights to ensure that important parcels remain in current uses (e.g., farming, forestry), or at least protect the land from irreversible development. A good beginning to a PDR program is the formation of a land trust or alignment with an existing area land trust in order to have an organization to be entrusted with development rights (held through recorded Conservation Restrictions).

A five-year open space plan approved by the Massachusetts Executive Office of Environmental Affairs, Division of Conservation Services is essential for receiving reimbursements from the Commonwealth through Self Help grants for such purchases. Parcels enrolled in the State's Chapter 61, 61A, or 61B tax abatement program are often good candidates to consider for acquisition as the town must be offered right-of-first-refusal before they are sold for a change in use. If the town has adopted the Community Preservation Act (CPA), it can receive up to a one hundred percent match of funds raised by the town through a one, two, or three percent surtax on local property taxes. In theory, if CPA funds are used for land acquisition in conjunction with Self Help grant reimbursements, every \$100 of town-raised funds could generate \$220 in support from the state. (Expenditure of town funds to acquire interest in land requires approval by a two-thirds majority vote at town meeting.)

### **Limited Development**

Limited Development is a technique land trusts often employ to help offset the acquisition costs of conservation land. A "limited" amount of development, generally residential, is carefully located on a small portion of the site to generate the needed revenue. The majority of the land, including the most notable natural and cultural features, is then permanently preserved with a perpetual Conservation Restriction. Individual property owners and even municipalities with conservation objectives in mind may also avail themselves of this approach. (Design technique that generally complies with existing zoning bylaws and subdivision regulations.)

## **INFLUENCING THE PACE OF DEVELOPMENT**

### **Building Permit Caps**

This technique places a limit on the issuance of building permits for new construction, whether annually or a rolling maximum in a specified period (usually, two years). The number of permits is often set at the average for the previous five or ten years to stabilize growth, but may be set lower or somewhat higher as desired by the community. It is generally acknowledged that a town cannot limit the subdivision of land in this manner, but can only pace the construction of dwellings on the newly-created lots.

The technique is not designed to stop growth, but rather to help avoid unexpected growth spikes so that the provision of town services can keep pace with new development. Other benefits include spreading the financial burden of providing

services to new residences over longer time periods, and allowing open space acquisition funds to better keep pace with development. Building Permit Caps should be reviewed periodically (every 5 years is recommended) and revised if necessary.

### **Development Scheduling**

Also known as phased growth, this technique allows for the gradual buildout of approved subdivisions over a number of years. Small subdivisions are able to be constructed in one year, while larger subdivisions would be “phased” over a number of years. An option is to run the schedule as a “points” system where the more points a project earns the quicker the buildout. Points are awarded for good design, provision of open space or parks, affordable housing, etc.; they are subtracted for building on farmland, using scenic road frontage, etc.

## **INFLUENCING THE LOCATION OF DEVELOPMENT<sup>4</sup>**

### **Sewer and Water Service Controls**

Town water and sewer hookups may be granted only in furtherance of the town’s growth management objectives in the master plan, and not necessarily ad hoc to a prospective subdivider who proposes putting in a half mile of connector line. The Subdivision Control Law gives planning boards authority to regulate the provision of these services in the course of their review of a subdivision (M.G.L. c. 41, § 81-M). This should be done in consultation with the Department of Public Works and board of health, and there must be detailed language in the town’s own subdivision regulations to this effect. A better approach is a delineated sewer/water service district on the zoning map, with a special permit available for certain extensions outside of that limit. (Adopted as regulations by a simple majority vote of planning board after a public hearing)

### **Rural/Suburban Roads Designation**

This zoning bylaw establishes criteria for what is a “rural” road (narrow, steep, dirt surface, poor drainage characteristics, etc.), and what is a “suburban” road (meets town requirements for width, grades, surface, drainage, etc.). Development is

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<sup>4</sup> Other tools, such as Up-Zoning, Transfer of Development Rights, Flexible Zoning, Floating and Overlay Zones, Planned Unit Developments, Village Center Zoning and Traditional Neighborhood Design can also influence development location by attracting creative, high-density projects to certain areas (see Influencing the Design and Character of Development, below).

allowed to proceed with the normal frontages and densities if the new lots front on, or the proposed new street connects to, a suburban road. However, the required frontage and lot size are increased if the proposal is on a rural road. As such, lower densities and a more rural character can be accomplished with the rural road option – a trade-off between lot size and road construction. The applicant may provide upgrades to a deficient road to bring it up to suburban standards, and thereafter would be able to proceed with normal development.

### **Discontinuance of Roads**

Rural towns are often characterized by their quaint, but substandard roads. In fact, some roads legally classified as public ways may not actually exist other than as a layout on paper, or are cart paths in such poor condition that access to building lots is impossible or impractical for safety vehicles. In order to avoid lot creation along these inadequate roads by way of the ANR (Approval Not Required) process under the State's Subdivision Control Law, towns can formally discontinue them under M.G.L. c. 82, § 21 or § 32A. In the case of roads that have some houses on them already, the roads can be re-established as Statutory Private Ways, which are owned and maintained by the abutters but still open to public use. In some cases, and following procedures specified in state statutes, towns may continue to perform snow and ice removal and make temporary repairs to private ways. (Simple majority vote of town meeting if town does not have an official map; two-thirds majority with official map)

## **ENHANCING STATE ENVIRONMENTAL REGULATIONS**

### **Local Wetland Bylaws**

The Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40) provides basic protection to certain wetland resources across the Commonwealth, causing many towns to augment it by adopting a local wetlands bylaw. If they are reasonable and implemented properly by the conservation commission, these bylaws can shield the town from superceding orders from the Department of Environmental Protection (DEP), and will allow for more extensive protection of resource areas, especially isolated wetlands, vernal pools, and associated buffer zones. (Adopted as a general bylaw by simple majority vote at town meeting)

## **Upland Requirement for Building Lots**

In addition to the basic area requirement for building lots in the zoning, an upland requirement stipulates that a certain percentage of the lot's minimum area must be dry land (e.g., not a wetland). This measure prevents development of "islands in the swamp" and reduces the likelihood of human encroachment into wetland areas and their buffer zones.

## **Board of Health Regulations**

Boards of Health, like conservation commissions with wetlands, can augment their regulations pertaining to on-site sewage disposal beyond that provided by state regulations. Title 5 of the State's Sanitary Code (310 CMR 15.00) applies uniformly to all cities and towns in the Commonwealth and offers only minimum standards. The law does not account for the differences in surficial geology, existing surface and groundwater quality, soils, slope, topography, land use, and sensitivity to pollution from wastewater among Massachusetts' 351 towns and cities. After study, towns can tailor their regulations to ensure that the cumulative effects of widespread use of on-site systems will not adversely affect public health, the environment, or property values over time. (Adopted by the board of health as regulations and/or as a general bylaw by simple majority vote of town meeting)

## **Water Supply or Aquifer Protection Zoning**

In order to protect surface drinking water supplies and/or public wells, towns may create protective zoning districts aligned with the land areas that contribute water to these supplies. The density of development allowed in the district is often set lower than in other areas of town and Open Space Design may be the required form of residential development. In addition, impervious land cover, such as parking lots and buildings, is limited (e.g., ten percent or less of any lot's area), and certain land uses, such as auto repair, salvage yards, and commercial petroleum storage, are prohibited. A plan may also be put in place to acquire land within the district.

## **INFLUENCING THE DESIGN AND CHARACTER OF DEVELOPMENT**

### **Flexible Zoning**

Flexible Zoning is similar to Open Space Design in that lot sizes, frontages and other dimensional requirements will vary from the conventional standard, except there may or may not be an open space dedication requirement. Flexible Zoning is

designed to accomplish a broader range of community goals. The number of lots may be the same as under a conventional layout or, alternatively, it may be greater through the use of bonus units. Within that broad dictate there is great flexibility in design so that affordable housing, senior housing, community amenities and/or open space can be provided in innovative ways. Flexible Zoning frees the plan's designer from the homogenous and monotonous requirements of a conventional, cookie-cutter layout thereby allowing development to better "fit" the land.

### **Back-Lot Zoning**

A Back-Lot Zoning bylaw allows what otherwise would be frontage (ANR) lots along existing roadways to be re-located to the rear or elsewhere on a parcel. Such "back" lots would themselves have no road frontage; in essence they are landlocked. Access easements are established over abutting property by way of a shared driveway serving multiple lots, thus reducing the number of curb-cuts onto the town road. This leaves the land along the road or in other sensitive areas undeveloped and the houses in, hopefully, a better location. Upkeep of the shared driveway is assured by way of maintenance agreements recorded with the deed to each of the individual lots.

### **Flag Lots with Shared Driveways<sup>5</sup>**

Flag Lots with Shared Driveways are similar to Back-Lots, but such lots do actually connect to the road, albeit with less than the required frontage. The narrow "poles" which provide frontage on, and access from, the road are often only thirty to fifty feet wide. The pole portion leads to a full-sized lot at the rear, referred to as the "flag." If the poles are adjacent to one another at the street, a shared driveway works best in terms of appearance to serve the multiple house sites in the rear. In this way frontage is conserved, which allows much of the land along the town road to remain undeveloped.

### **Traditional Neighborhood Design (TND)**

TND seeks to maximize the use of land and provide for livable neighborhoods where development is deemed appropriate, thus relieving the pressure of sprawling

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<sup>5</sup> The use of Back-Lots or Flag Lots should only be permitted to achieve a public purpose (such as preservation of roadside character, protection of wetlands, retention of farmland, etc.), and not to increase development density beyond what would otherwise be possible in accordance with the underlying zoning. Both of these techniques modify a typical ANR layout so should be administered through a special permit process which must be completed prior to endorsement of the ANR plan by the planning board.

development elsewhere. Traditional neighborhoods are developed at higher than suburban densities with roadway layouts that are pedestrian-friendly and at a “human” scale. Many housing types in addition to single-family-detached may be accommodated, and amenities like “pocket” parks, front porches and rear alleys are often part of the design. TND works where town water and/or sewer are available, and can be combined successfully with several of the above techniques including Up-Zoning, Transfer of Development Rights, Flexible Zoning, and Open Space Design.

### **Scenic Roads Designation**

Individual scenic roads can be specifically designated by towns pursuant to M.G.L. c. 40, § 15C. Any work in the public road right-of-way, such as maintenance, installation of utilities or sidewalks, widening or creating driveway entrances, that involves the cutting of trees or altering of a stone wall is subject to the bylaw. Such work, including that proposed by the local Department of Public Works, is subject to a public hearing and must receive planning board approval. If a Scenic Roads Bylaw is adopted, fines may be assessed for violations. (General or zoning bylaw)

### **Village Center Zoning**

Village Center Zoning is a defined zoning district for the purpose of creating or perpetuating the characteristics of a small-scale mixed use town center. The standards of the district with respect to allowed uses, dimensions and setbacks, parking, signs, lighting and landscaping should be modeled after either the existing downtown or other, successful village centers. The goal is to create a dynamic mix of commercial, residential, governmental and civic uses that will make the downtown an attractive place to live, work and visit.

### **Demolition Delay**

A Demolition Delay bylaw will help prevent the razing of significant historic structures by requiring Historical Commission sign off on demolition permits issued by the Building Inspector. If the structure is deemed to be historically important to the community, the Commission can decide to withhold its endorsement of the demolition permit until a “delay” period has expired (often six months to one year). This will afford the Historical Commission, local officials and other community members an opportunity to seek alternative solutions to the demolition, such as moving the structure or finding a preservation-oriented buyer. (General bylaw requiring simple majority vote of town meeting)

## **Local Historic Districts**

Many Local Historic Districts have been created under M.G.L. c. 40C. The district will help to preserve existing historic structures and encourage the use of designs and materials for new structures that are compatible with the historic fabric of the neighborhood. New structures or exterior alterations to existing structures are reviewed by a historic district commission. (General bylaw, but requires two-thirds majority vote of town meeting)

## **Site Plan Review/Design Review**

These devices are often a component of the review/approval process for a use permitted by special permit, but can also be required for uses permitted as of right. A detailed plan showing existing and proposed site features is submitted for review and possible modification in accordance with criteria set out in the bylaw. Site Plan Review assures that, in addition to health and safety issues, proposed structures and site work are well integrated into the context of the neighborhood and the unique characteristics of the site itself.

Design Review is similar to Site Plan Review except that architectural features are also considered, and the area to which it applies may be limited to historic districts or town centers. (An informal Design Review process guided by non-zoning design guidelines could be adopted by a majority vote of the planning board or alternatively as a general bylaw requiring simple majority vote of town meeting.)

## **Scenic Upland Zoning**

Scenic Upland Zoning can be established to protect mountain summits, ridgelines, fragile hillsides or other areas of unique visual appeal and scenic quality from aesthetic or environmental degradation. Similar to the Water Supply Protection District discussed above, this bylaw regulates alterations of land that can have significant adverse effects on natural resources or scenic qualities, such as ridgeline or hillside development. The standards for the district can be applied through a site plan review conducted in conjunction with a special permit required for certain classes of development activity.

## **Planned Unit Development (PUD)**

PUDs are an extremely flexible development type characterized by mixed land uses and variations within uses, such as single-family homes alongside townhouses and retail. Often parks, trails, and common spaces are integrated into the site plan.



Unique approaches to roadways, circulation and parking can also be proposed. In general, when considering a PUD application the reviewing board works with the applicant to achieve a superior design outside the normal constraints of existing zoning. Many traditional New England town centers, if built today, would be classified as PUDs. While great projects often result from this process, the reviewing board must reserve enough authority to deny an ill-conceived PUD. PUDs are frequently provided by special permit in conjunction with a Floating Zone, as described below.

### **Floating Zones**

Floating Zones are a set of zoning regulations that take effect when someone applies for a permit that takes advantage of the allowable uses and conditions associated with the Floating Zone. PUDs are commonly provided for by use of a Floating Zone, as they might be appropriate in many areas of town, but a finding to that effect is dependent on the specifics of the application and the site selected. Floating Zones usually require a rezoning of the subject land to “apply” the zone to the proposed project.

### **Overlay Zones**

Overlay Zones are used where a specific set of uses may be appropriate in a particular district, but only with certain conditions or restrictions. An example is an overlay allowing professional offices in a residential district, where certain conditions can be met and flexibility in design is important to ensure the continued residential character of the area. Another example is an Overlay Zone aligned with an aquifer recharge area where density of development is reduced and special limitations on potentially harmful activities are imposed. Overlay Zones are essentially a “blanket” over an existing, defined zone or zones, where increased discretion is accorded the reviewing board and a special permit or site plan review rather than a rezoning is required to allow the proposed use.

### **Subdivision Regulations**

Subdivision Regulations in Massachusetts under M.G.L. c. 41 primarily ensure that new roadways and utilities will be laid out in an efficient and safe manner, whether as a town road or a private way. These regulations can also enhance the “livability” of neighborhoods by providing for walking paths, retention of existing vegetation, generous plantings of street trees, vegetated cul-de-sac turnarounds, common spaces within a subdivision, and appropriately-sized roadways that are pedestrian-friendly and well integrated with existing topography. If the regulations are specific enough,

they may also deal with site development issues such as mass grading, work on slopes, tree removal and the like. (Adopted by the planning board after a public hearing)

### **Inclusionary Housing**

In order to address the shortage of newer housing that is affordable, towns can require that residential development projects beyond a certain size provide a percentage of units as affordable for those earning “low” or “moderate” incomes. Depending on the bylaw, affordable units needed to meet the requirement may also be provided off-site. While seemingly a reasonable option, a fee paid into an affordable housing mitigation fund in lieu of construction has been held by Massachusetts Courts to be an unfair tax, and therefore unconstitutional. Enabling legislation may be necessary to charge a fee rather than requiring an “exaction” of affordable housing units.

## **APPENDIX A**

### **Municipal Approaches to Open Space Design for Subdivisions in Massachusetts<sup>6</sup>**

#### **1) Optional by Special Permit**

Historically, this has been the most common approach, one where the applicant chooses between a conventional subdivision (by right) or an Open Space Design (by special permit). The base number of dwelling units is the same as a conventional plan, but density bonuses are often incorporated in exchange for amenities or to induce developers to go through the rigors of the special permit process. (Rutland, MA)

#### **2) Optional By-Right**

This new approach was made explicitly possible by a recent change to the Massachusetts Zoning Act, which removes the implied requirement for a special permit. Here, a district is defined where Open Space Design is one of the residential design types permitted by right. The bylaw states the objectives of the district and lays out the dimensional and design standards to follow. The incentive for a developer is the lack of planning board discretion to deny a special permit if the applicant complies with the standards.

A potential drawback is that one size does not fit all. Too many zoning-based standards can reduce the flexibility that could be achieved through a discretionary, but more flexible, special permit. This approach can be administered through a Site Plan Review process and/or the subdivision regulations. (Amherst, MA)

#### **3) By-Right with Density Incentive**

In a designated zoning district, conventional subdivisions are allowed by right at a very low density for Massachusetts (e.g., ten acres per dwelling unit), whereas Open Space Designs are allowed by-right with Site Plan Review based upon a significantly higher density (e.g., two acres per dwelling unit). This density

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<sup>6</sup> Regardless of which option is selected, the likelihood of successful Open Space Designs improves with lower underlying densities, especially in a rural town without sewer or water service. In this way meaningful amounts of land can be set aside as open space and the overall density of development better fits a rural rather than suburban model. Also recommended is a separate section in the subdivision regulations with roadway design standards applicable only to Open Space Design projects.

regime serves as a strong incentive for applicants to opt for an Open Space Design. (Amesbury, MA)

#### **4) Two Plan Submission**

A special permit is required for a “Major Residential Development,” defined as any project exceeding a threshold such as “greater than five lots created in any five year period,” or “greater than five hundred feet of new roadway proposed.” These thresholds will include many subdivisions. The special permit criteria contain numerous objectives having to do with preserving rural character, protecting natural resources, and livable residential design. The applicant must submit two plans for the planning board to consider, one conventional, the other an Open Space Design (in accordance with the aforementioned criteria set forth in the bylaw). The board decides which plan best meets the community’s objectives, approving a special permit for that type. (Bolton, MA)

#### **5) Rural Zoning: Open Space Design as Principal By-Right Use**

This new technique is similar to the “by-right” approaches described above, except that low-density Open Space Design is the only residential design type permitted by-right in the district. With Rural Zoning (and associated subdivision regulations), road construction standards and other requirements such as engineered drainage systems may be waived or reduced in exchange for a lower (rural) density with large areas of preserved open space a part of each residential development project. Deviations, including conventional designs, are possible, but only by special permit provided the plan meets the objectives of the district as well as an Open Space Design (in the planning board’s judgment after a public hearing). Certain ANR land divisions may be exempted.

## **APPENDIX B**

### **Sources of Information and Assistance**

In addition to the regional planning agency or land trust in your area, the following are statewide sources of information and assistance.

#### **Growth Management Planning**

##### **Census Data**

The Massachusetts Institute for Social and Economic Research (MISER)

Contact: (413) 545-3460 or (617) 727-4537

Website: [www.umass.edu/miser/](http://www.umass.edu/miser/)

##### **Community Preservation Initiative**

Executive Office of Environmental Affairs

Contact: Dawn Henderson at (617) 626-4907 or [dawn.e.henderson@state.ma.us](mailto:dawn.e.henderson@state.ma.us)

Website: [www.mass.gov/envir](http://www.mass.gov/envir) and click on “Community Preservation”

##### **Conservation Law Foundation**

Contact: Bennet Heart at (617) 350-0990 or [bheart@clf.org](mailto:bheart@clf.org)

Website: [www.clf.org/advocacy/communities.htm](http://www.clf.org/advocacy/communities.htm)

##### **EPA Smart Growth Outreach Program**

Contact: Alison Walsh at (617) 918-1593 or [walsh.alison@epa.gov](mailto:walsh.alison@epa.gov)

Website: [www.epa.gov/region1/topics/communities/smartgrowth.html](http://www.epa.gov/region1/topics/communities/smartgrowth.html)

#### **Local Bylaws and Development Regulations**

##### **Citizen Planner Training Collaborative**

Contact: Gisela Walker at (413) 545-2188 or [gwalker@umext.umass.edu](mailto:gwalker@umext.umass.edu)

Website: [www.umass.edu/masscptc/](http://www.umass.edu/masscptc/)

##### **Department of Housing and Community Development**

Contact: Donald Schmidt or Jane Santosuosso at (617) 727-7001 or (800) 392-6445

Website: [www.state.ma.us/dhcd](http://www.state.ma.us/dhcd)

##### **Massachusetts Federation of Planning and Appeals Boards**

Contact: Linda Finan at (508) 754-3068

##### **Massachusetts Historical Commission**

Contact: Christopher Skelly at (617) 727-8470 or [christopher.skelly@sec.state.ma.us](mailto:christopher.skelly@sec.state.ma.us)

Website: [www.magnet.state.ma.us/sec/mhc/](http://www.magnet.state.ma.us/sec/mhc/)

### **Environmental Regulations**

#### **Massachusetts Association of Conservation Commissions**

Contact: Sally Zielinski at (617) 489-3930 or [staff@maccweb.org](mailto:staff@maccweb.org)

Website: [www.maccweb.org](http://www.maccweb.org)

#### **Massachusetts Association of Health Boards**

Contact: Marsha Benes at (508) 643-0234 or [benes@mahb.org](mailto:benes@mahb.org)

Website: [www.mahb.org/](http://www.mahb.org/)

### **Land Conservation**

#### **Land Trust Alliance**

Contact: (202) 785-1410

Website: [www.lta.org](http://www.lta.org)

#### **Massachusetts Audubon**

Contact: Bob Wilber, Director of Land Protection at (781) 259-9506 ext. 7640 or [rwilber@massaudubon.org](mailto:rwilber@massaudubon.org)

Website: [www.massaudubon.org](http://www.massaudubon.org)

#### **Massachusetts Land Trust Coalition**

Contact: Bernie McHugh at (978) 897-0739 or [info@massland.org](mailto:info@massland.org)

Website: [www.massland.org](http://www.massland.org)

#### **Massachusetts Self-Help Program, Conservation Restrictions, and Open Space Plans**

Executive Office of Environmental Affairs, Division of Conservation Services

Contact: Joel Lerner at (617) 626-4907 or [joel.lerner@state.ma.us](mailto:joel.lerner@state.ma.us)

Website: [www.mass.gov/envir](http://www.mass.gov/envir) and click on “Conservation Services”

#### **The Nature Conservancy**

Contact: Loring Schwartz at (617) 227- 7017 or [lschwartz@tnc.org](mailto:lschwartz@tnc.org)

Website: [nature.org](http://nature.org)

#### **Trust for Public Land**

Contact: Craig MacDonnell at (617) 367-6200 ext. 304 or [craigmacdonnell@tpl.org](mailto:craigmacdonnell@tpl.org)

Website: [www.tpl.org](http://www.tpl.org)

#### **Trustees of Reservations**

Contact: Wes Ward at (978) 921-1944 ext. 1863 or [landcons@ttor.org](mailto:landcons@ttor.org)

Website: [www.thetrustees.org](http://www.thetrustees.org)

## **NOTES**