

Natural Resource Protection Zoning

The Green Side of Smart Growth

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Current Conditions: Field Report from Massachusetts

Massachusetts planners put tremendous energy into servicing the zoning laws in their communities. But are the legitimate ends of zoning really fulfilled by the means currently available in our state for protecting natural resources, environmental quality, or community character? The authors do not believe zoning has nearly lived up to its potential, and the Commonwealth has been diminished for it.

One size has been asked to fit all in Massachusetts. By that we mean zoning lot-size requirements of 1-3 acres per dwelling – mostly, single-family dwellings – accompanied by lengthy frontages and deep setbacks. These are the predominant zoning requirements for individual building lots across the Commonwealth, from the Berkshires eastward, even into Metropolitan Boston. But instead of protecting community character, this kind of “growth management” inevitably produces the sprawl-scapes that stand in such stark contrast to the classic “town and country” landscape that is one of New England’s most iconic, and bankable, hallmarks.

In suburban and urban regions, these lot requirements are out of character with older settlements and squander available public sewer and water service opportunities. What open land remains in these communities is more rapidly consumed in one to two acre bites. In such places, these minimum lot sizes are far too large and often are exclusionary. In rural towns, minimum lot size requirements of two or three acres and greater chew up the countryside at a more rapid rate, fragment wildlife habitat, and create parcels too small to support farming or forestry.



Three acre conventional zoning on the ground in Oakham, MA

When cluster development options or requirements are introduced and based upon the underlying conventional zoning, the results have proven unsatisfactory. While a more aesthetically pleasing way to subdivide land that affords marginally better protection for wetlands, the remainder lands preserved by most cluster development are inadequate to fulfill their resource protection purposes, whether to sustain farming or forestry or protect habitats, scenic views, or water supplies. Reliance on the underlying zoning for purposes of determining allowable lot counts often yields too many housing units, an insufficient amount of protected open land, and layouts that destroy the natural resource and environmental value of the remaining land.



Common open space in a cluster subdivision in Belchertown, MA

These inadequacies stem largely from a lack of planning options for rural communities and environmentally important portions of suburban and resort communities. Many Massachusetts towns view larger lot sizes, sometimes supplemented by an option to cluster, as the furthest extent to which local regulations can go to preserve natural resources and community character. Consequently, Massachusetts has relied heavily on land acquisition in fee and land protection through Conservation or Agricultural Preservation Restrictions as the workhorses of open space preservation. The effectiveness of such a system is limited because inadequate local land use regulations inflate land values, creating unrealistic and inappropriate expectations on the part of landowners, thereby ensuring that limited funds can protect only a few select parcels. As development demand heats up, the remaining properties will inexorably be divided into large lots or clustered into somewhat smaller lots with scattered filaments of open space (often wetlands and the peripheries of subdivisions). At build-out in either case, the historic town center will be stranded in a homogeneous sea of sprawling residential development. What little open land remains will largely follow stream drainage corridors, but will hardly resemble the countryside that once comprised most of the town's area.

Many planners and housing advocates decry the larger lots and push for universally smaller lot sizes to stimulate the production of needed housing. But the prospect of merely allowing smaller lots everywhere conjures up nothing more than denser suburban sprawl in the minds of local officials, who foresee traffic congestion and increased demands for schools and other municipal services.

Some advocate increased densities solely in existing centers and designated growth areas. The problem with this approach is that it is too one-sided and does not represent balanced planning that responds to the full range of a town's goals. Increasing density in planned growth areas, while highly desirable, will remain politically unpalatable unless it is accompanied by reasonable measures to curb development in other areas (which would otherwise continue apace). Without this added conservation component, the higher density areas will eventually be surrounded by the inefficient and destructive sea of sprawl described above – a zoning prescription that is completely at odds with what most towns envision for the future.

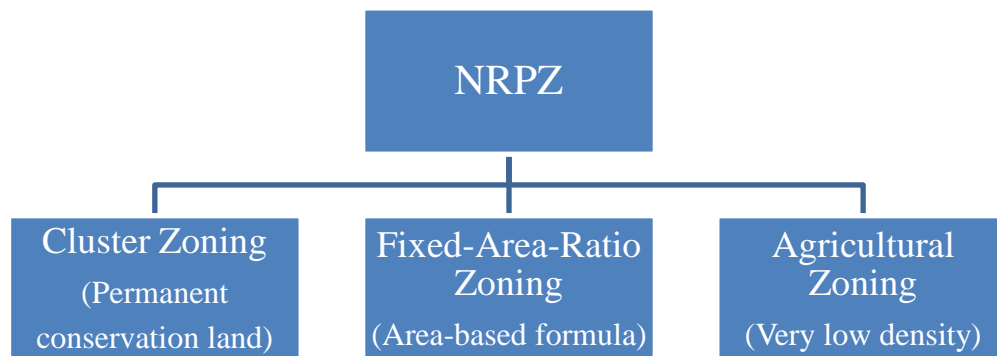
In the end, towns will cling to using ever-larger lots for lack of any better growth management strategy. Although other states have evolved significantly beyond this ineffective tool, Massachusetts continues to run circles within a box of its own making.

Natural Resource Protection Zoning

These rather dismal prospects lead us to the argument that it's time for a new countryside zoning model in Massachusetts. Fortunately, we don't have to start from scratch; other similar states have grappled with these issues and offer some good models to consider. Pennsylvania and Maryland have embraced a more complete vision of smart growth by complementing their higher-density new urbanism tools with lower-density techniques in areas of high natural resource value, in other words – density diversity. Around the country, tools such as these are applied using base development densities ranging from 10-160 acres per unit of housing combined with zoning mechanisms that either: 1) ensure that land is not divided into smaller

units than can be viably farmed or managed for forestry; or 2) concentrate or transfer allowed development rights so that the balance of the land may remain in its current use.

One lower-density technique, inspired by some successful out-of-state models and dubbed by the authors as Natural Resource Protection Zoning (NRPZ), has already gained a toehold in Massachusetts. Versions recently have passed overwhelmingly at town meetings in Shutesbury, Brewster, and Wendell, and similar bylaws are under development in a several other towns. NRPZ borrows on successful programs used elsewhere to accomplish what its name suggests by linking meaningful land conservation to land development. NRPZ can take a number of forms, but the essence is to combine low underlying densities with compact patterns of development so that significant areas of land are left permanently undeveloped and available for agriculture, forestry, recreation, watershed, carbon sequestration, and wildlife habitat.



The NRPZ pedigree

NRPZ emphasizes current, natural-resource-based uses over typical development. Limited residential uses are allowed, but the overall amount is much less than in other areas of a community. Some common elements of an NRPZ by-law are:

- There is no “underlying zoning;” NRPZ is the zoning for the selected area.
- Subdivisions must comply with NRPZ requirements in order to be a use by-right; proposed deviations, including the conventional subdivisions that are currently allowed by-right in almost every town, require a special permit. The special permit proposal must meet the objectives of the zoning district as least as well as an NRPZ plan.
- NRPZ is an option for non-subdivision development (i.e., ANR and condominiums).
- The number of allowed dwelling units is calculated up-front by formula (see worksheet, below). There are no “yield plans” or conventional subdivision plans drawn. Constrained lands, such as wetlands and steep slopes, are wholly or partially subtracted from the gross project area; the remainder land is then divided by a selected “density divisor” of 3–10 or more acres per dwelling unit to arrive at a unit count. Although the example below shows a reduction in dwelling units from a conventional plan, that is not always the case. Numerous examples based on actual properties have shown the same or even additional units possible under NRPZ.

Shutesbury Open Space Design Worksheet

Dwelling Units

#1. Determine acreage of the entire project.	
#2. Determine the combined acreages in the RR, TC, and/or LW zones.	
#3. Determine the acreage of constrained lands in the three zones: 1/2 of slopes >20%; and <u>all</u> freshwater wetlands, flood plain, lakes, ponds, or restricted areas.	
#4. Subtract, as indicated above, either one-half or all of the acreages in #3 from the total area of the RR, TC, and/or LW zone in #2.	
#5. Divide the remainder acreage in the RR, TC, and/or LW zones by three (3).	
#6. Determine the acreage in the FC zone.	
#7. Determine the acreage of constrained lands in the FC zone: 1/2 of slopes >20%; and <u>all</u> freshwater wetlands, flood plain, lakes, ponds, or restricted areas.	
#8. Subtract, as indicated above, either all or one-half of the acreages in #7 from the total area of the FC zone in #6.	
#9. Divide the remainder acreage in the FC zone by five (5).	
#10. Combine the results of #5 and #9 and round up or down (less than 0.5 = down, 0.5 or greater = up) to equal the base number of dwelling units .	
#11. Add in any dwelling units from density bonuses and/or TDR to arrive at the maximum dwelling units (may not exceed 1.25X the base number from #10).	

Open Space

#12. Multiply the total RR, TC, and/or LW acreage (from #2) by 0.65.	
#13. Multiply the total FC acreage (from #6) by 0.8.	
#14. Add #12 and #13 to equal the base acreage of open space .	
#15. Add any additional open space from density bonuses, if any, to arrive at total acreage of open space to be preserved.	

Developable Land

#16. Subtract #15 from #1 to arrive at the acreage remaining for development as streets and houselots .	
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Design

The location and relationship between developed areas and open space, as well as neighborhood layout, roadway access, and trails, are addressed by the applicant and Planning Board through a process called “Conservation Analysis,” which is administered either through the subdivision regulations or through site plan review (if the project is not a subdivision).

The worksheet used in Shutesbury, MA to calculate dwelling units, open space, and developable land from basic mapped information.

- The percentages of required open space are high, from 65–90%, leaving a significantly smaller area, between 10–35%, for development.

- Developed and open space areas are carefully selected on the parcel by way of a “conservation analysis” process built into the subdivision regulations.
- Greater design flexibility is offered in the developable areas (e.g., shared driveways, diversity of housing types, no specified lot sizes, frontages, or yard setbacks).
- Earned density bonuses and/or transfers of development rights are available to increase the number of allowed dwelling units in exchange for public benefits such as the provision of affordable housing or public access.



100 acre wooded site with field, stream, and trail before development



Two-acre zoning/conventional subdivision (34 lots, no preservation)



Natural Resource Protection Zoning (14 lots, >75% preservation)

Legal Analysis

Except in rare circumstances development may not be prohibited, but it may be subject to reasonable restrictions having a rational nexus to a town’s legitimate objective of preserving and maintaining its open space, natural resources, and rural character. Several recent decisions of the Massachusetts Supreme Judicial Court (state’s highest court) bear on the legality of NRPZ in Massachusetts.

Of paramount concern is any legal limit on allowable lot size or, in the case of NRPZ, allowable density. The durable bromide that 3 acres is the legal limit for lot size in Massachusetts is anchored in no state statute or court decision, but rather in a wishful misread by some of *Johnson v. Edgartown*,¹ decided in 1997 by the Supreme Judicial Court. The Court itself, in a failed effort to forestall this interpretation of its decision, said:

This opinion should not be read as an endorsement of three-acre zoning. We have upheld the challenged zoning provision because of the special circumstances of this case, particularly the proximity of the restricted land to a coastal great pond. We are confident in the special circumstances of this case that the three-acre zoning provision has not been shown to be arbitrary and unreasonable or substantially unrelated to the public health, safety, and general welfare.

In other words, the reasonableness and non-arbitrariness of a by-law’s lot size prescription depends on a rational nexus to “special circumstances,” the permissible lot size (or density) itself rising or falling in balance with the nature and salience of those circumstances.

In *Johnson*, the Court discerned those special circumstances in Edgartown’s legitimate legislative purpose of protecting a natural resource of the town, namely the protection of a coastal great pond that would be at demonstrated ecological risk by development at any greater density. So, what the Court really said is that there is no free-standing magic or pedigree to lot

size in the absence of a demonstrated link between lot size and a valid zoning purpose. Inferable from what the Court said is that even a lesser size requirement, in the absence of special circumstances, might also fail, but also that an even greater lot size requirement is not legally barred, though burdened by progressively greater salience required for those special circumstances.

The Court fairly warned that “reliance on generalities concerning the public benefit of large lot zoning will not carry the day.” Progressive depletion of irreplaceable farmland and forestland is a reality, not a generality. Recognizing this, the Massachusetts Legislature has enacted many statutory protections of these natural resources (illustratively, M.G.L. Chapters 61, 61A) and has committed serious funding to the protection of these resources (illustratively, conservation and agricultural preservation restrictions under M.G.L. Chapter 184) to avert natural resource disasters which might be slowed – even if not stopped – by appropriate zoning prescriptions.

We may decipher *Johnson* as rejecting any mathematical constant in the number, size, or location of potential lots within a tract of land and as allowing lot number, size, and location to be subjected to flexibilities driven by the pursuit of particular public purposes. The natural resource at risk in *Johnson* was a coastal pond, where lot size limitation was found to be an appropriate intervention. The natural resources at risk for which NRPZ is the appropriate intervention are our diminishing inventories of irreplaceable open space, forest land, and farmland, for which maximum – not minimum – lot size is a key feature, along with lot layout. NRPZ is actually a “low density / small lot” system, and will be defended on the need for the lower density, not a larger lot size. The conservation analysis requirements that are part of NRPZ are designed to ensure that the low densities and open space protection requirements serve a valid and clearly articulated public purpose. This is a much easier case to make with NRPZ than with large lot zoning, which in most cases does little or nothing to preserve open space and its resource values.

In the decisionsⁱⁱ following *Johnson*, the Court consistently cited to a municipality’s constitutional power to regulate the use of land for valid public purposes, placing squarely on any challenge to the exercise of that authority the burden of demonstrating by a preponderance of the evidence that the regulation is arbitrary, unreasonable, and unrelated to valid purposes. In *Durand v. IDC Bellingham, LLC*, the Court emphasized this by stating:

If the reasonableness of a zoning bylaw is even fairly debatable, the judgment of the local legislative body responsible for the enactment must be sustained.

The next year, in *Zuckerman v. Hadley*, the Court directly addressed a town’s ability to take action to preserve its agricultural resources, stating (including a pertinent footnote):

Like all such towns, Hadley may, in an effort to preserve its character and natural resources, adopt any combination of zoning bylaws,¹⁴ ... that may, as a practical matter, limit growth by physically limiting the amount of land available for development.
[Footnote 14: *Within reason, such bylaws might include, for example, either large-lot or cluster zoning, expanded frontage requirements, the development of exclusive*

agricultural districts, or any other measure permitted by statute. See generally, e.g., Comment, Preserving Our Heritage, 17 Pace L. Rev. 591, 619-623 (1997).]

Finally, we turn to *Wall Street Development Corporation v. Planning Board of Westwood*ⁱⁱⁱ. In *Wall Street* the Court found that Westwood’s Major Residential Development by-law (the state’s most common form of “mandatory cluster”), was in fatal conflict with the Subdivision Control Law by making subdivision approval subject to a discretionary special permit, when it should, under state law, be a matter of right. But being “as of right” does not exempt it from having to comply with the recommendations of the board of health, the reasonable rules and regulations of the planning board, and – in the words of the Court – “other applicable constraints, such as zoning.” Under this analysis, NRPZ zoning accords “as of right” status to any subdivision complying with the by-law, but subjects deviations, including “conventional” subdivision layouts, to special permit procedures. In other words, under NRPZ there is a clear path to by-right approval of a subdivision with no other permit required as a pre-condition to approval. It thus holds the promise of delivering even better results than might have been sought through a Major Residential Development by-law.

The Way Forward

Engaging the public in a meaningful conversation about smart growth planning will be more successful if we pay attention to the low-density side of the equation, which has received scant attention because of a perceived lack of effective tools. Coupling this “new ruralism” with the increasingly accepted new urbanism approaches of traditional neighborhood design and form-based codes will help produce results that planners have hoped for since the beginnings of the growth management and smart growth movements.

The pictures we paint in our master plans of compact towns and villages surrounded by open countryside do not need to succumb to the advancing tide of suburban sprawl. Smart growth is not smart if it ends up being just compact development surrounded by sprawl. If we add Natural Resource Protection Zoning to our toolbox, and deploy all of the other available planning and zoning tools synergistically with it, we can make the green side of smart growth, and therefore smart growth itself, a reality.

ⁱ *Johnson v. Edgartown*, 425 Mass. 117, 680 N.E.2d 37 (1997)

ⁱⁱ *Durand v. IDC Bellingham, LLC*, 440 Mass 45, 7893 N.E.2d 359 (2003); *Zuckerman v. Hadley*, 442 Mass. 511, 813 N.E.2d 843 (2004)

ⁱⁱⁱ *Wall Street Development Corporation v. Planning Board of Westwood*, 72 Mass. App. Ct. 844, 894 N.E.2d 1139 (2008)

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