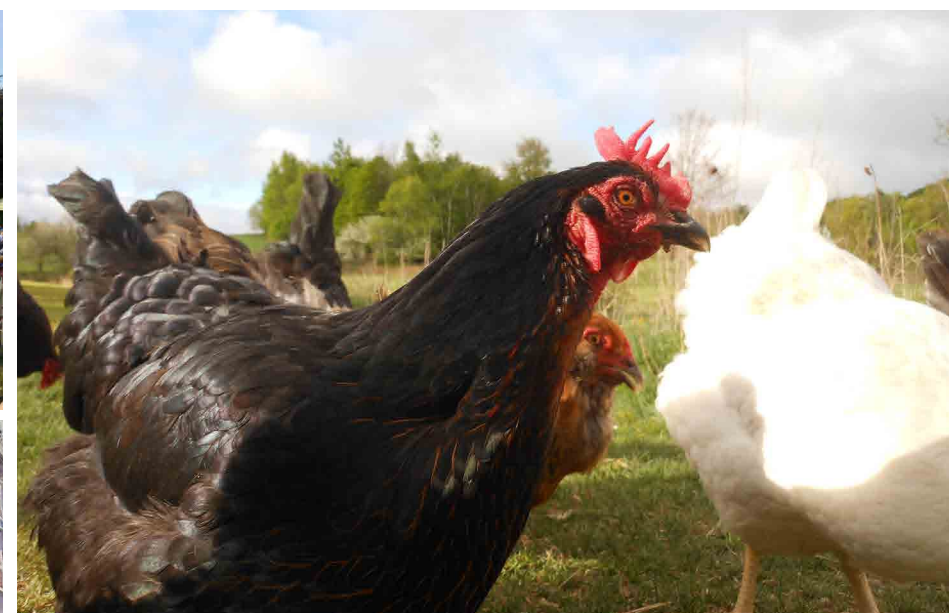


▶ SUSTAINING AGRICULTURE

Local Regulatory Context



AGRICULTURE LAND USE PLANNING TASK FORCE

▶ SUSTAINING AGRICULTURE

The Agriculture Land Use Planning Task Force of the Farm to Plate Network has developed a series of planning guidance modules that build off the work of **Sustaining Agriculture**, an agriculture planning guide from the 1990s developed by the Agency of Agriculture.

1. Agriculture and Food Systems Planning
2. Agricultural Land Conservation
3. Farmland and Property Taxes
- 4. Local Regulatory Context**
5. State Regulations

farm to plate



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On the cover: Woods Market Garden greenhouse, Burlington Farmers' Market; Rachel Carter; chickens; Foggy Brook Farm; Real Sticks; Vermont Smoke and Cure; view from the top of Mount Philo; Scott Sawyer; summer concert series; Snow Farm Vineyard; Islands Bike Tour; Vermont Farm Tours; wind turbine at Blue Spruce Farm; Aegis Renewable Energy.

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THE LOCAL REGULATORY CONTEXT

I. Overview

From forage crops to sheep to dairy, Vermont farmers have adapted to changing markets over time. Today, many are adapting again, diversifying their farms to include uses ranging from farm cafes to “pick your own” operations and from agritourism to hosting weddings. Adding these kinds of “agripreneurial” activities to a farm’s operation can help bolster farm viability, keep land open and in production, and maintain or enhance a community’s sense of place through the farm’s contributions to the community and the landscape.¹

While many communities may wish to promote this kind of economic development and land use, agripreneurial activities often fall into a regulatory grey area. These activities take place on farms but are not considered “agriculture” — at least not as defined by the state in the Accepted Agricultural Practices (AAPs), by Chapter 117 (see more on AAPs further in this guide), or by Act 250, Vermont’s development review law. On the one hand, this means that local regulations may be applied to ag-related uses to promote them and to manage their impacts. However, on the other hand, when local bylaws do not specify whether certain uses are permitted or prohibited, it challenges both the agripreneur and the municipality where the enterprise is located. Agripreneurs lack guidance about what is allowed, while municipalities lack tools to proactively manage any impacts (traffic or noise, for example) that a diversified farm business may create.

Fortunately, there are several approaches that a municipality can take to reduce the grey area and ensure that agripreneurial uses enhance the local landscape and economy.

Municipal Plan Goals and Policies

Municipal plan policies can be written to promote both traditional agriculture and on-farm businesses. And, since any regulation must be in conformance with the municipal plan, plan language that encourages diverse on-farm uses helps provide the basis for regulatory changes – for example, updates to zoning or subdivision regulations – that support agripreneurism. Several Vermont communities have incorporated such language, including St. Johnsbury and Westfield:

St. Johnsbury’s 2011 town plan, like many others, includes a land use goal to encourage and strengthen agricultural and forest industries. Several policies support this goal, including one that states: “The town should support agro-tourism as a dual benefit mechanism for commercial and agricultural land uses.” The plan also identifies an action step to “review and update zoning bylaws in conjunction with the Economic Development Plan to support defined...agro-tourism zoning needs.”

Westfield’s town plan includes several recommendations to strengthen the viability of local agriculture, such as ensuring flexibility in zoning to allow agricultural diversification and advancing the study of new value-added businesses that utilize the products of local dairy farms.

Note that to be effective, policies must be clear and unambiguous, or they may not provide sufficient guidance as to the community’s intent. Standards for development review in local regulations also need to be clear and unambiguous.

¹ The text for this section draws heavily from [Vermont Law School Land Use Clinic’s Facilitating Innovative Agricultural Enterprises: Considerations and Example Language for Vermont Municipalities](#); [Vermont Law School Land Use Clinic and Vermont Natural Resources Council’s Community Planning Toolbox](#); and [Vermont League of Cities & Towns Essentials of Land Use Planning and Regulation](#).

Agricultural Exemptions and Accepted Agricultural Practices (AAPs)

Regulation of agripreneurial uses in Vermont varies among municipalities and many exist in a grey area. Municipal authority to regulate agricultural land uses is strictly limited, referred to as the agricultural exemption and described under Title 24 V.S.A. § 4413 (d). This preempts municipalities from applying local land use regulations to certain agricultural activities and farm structures subject to regulations adopted by the Agency of Agriculture, Food, and Markets, called the Accepted Agricultural Practices, or AAPs.² Determining what agricultural land uses and structures are exempt from local regulation (i.e. preempted from local review) can be confusing and difficult.

Agricultural activities that are exempt from local land use regulation include the “*on-site storage, preparation, and sale of agricultural products principally produced on the farm*”³ (emphasis added), among many other activities. This includes value-added production such as cheese making or selling from a farm stand, provided the products are “principally produced” on the farm.

The AAPs outline farm management practices, with an emphasis on water quality. AAPs refer to a wide range of land use issues from solid waste storage to the siting and construction of farm structures. Encouraging other agripreneurial enterprises, such as agritourism, may not fit into the agricultural exemption and may need innovative town plan and regulatory language or zoning alternatives to help them move forward.

² 6 V.S.A. § 4810 (a) (1).

³ This standard is defined in Act 250 rule 2(c)(19), which states that “principally produced” means that more than 50% (by volume or weight) of the agricultural products, which result from the activities stated in 10 V.S.A. § 6001(22)(A)-(D) and which are stored, prepared or sold at the farm, are grown or produced on the farm.

Eleven Accepted AAPs

There are eleven AAPs that cannot be regulated by local zoning, though they must follow other state and federal regulations:

1. The confinement, feeding, fencing, and watering of livestock.
2. The storage and handling of livestock wastes and by-products.
3. The collection of maple sap and production of maple syrup.
4. The preparation, tilling, fertilization, planting, protection, irrigation, and harvesting of crops.
5. The ditching and subsurface drainage of farm fields and the construction of farm ponds.
6. The stabilization of farm field stream banks.
7. The construction and maintenance of farm structures and farm roads.
8. The on-site production of fuel or power from agricultural products or wastes produced on the farm.
9. The on-site storage, preparation, and sale of agricultural products principally produced on the farm.
10. The on-site storage of agricultural inputs including, but not limited to, lime, fertilizer, and pesticides.
11. The handling of livestock mortalities.

Farm Structures

While farming activities are exempt from local regulation and do not require a permit, 24 V.S.A. § 4413 (d) (2), and Section 4.07 of the AAPs requires farm operations to “notify a municipality of the intent to build a farm structure and shall abide by municipal setbacks unless waived by the Secretary of the Agency of Agriculture.”

Farm structures and practices are defined in numerous statutes, each serving a different function. Municipal law, under Chapter 117, prohibits local regulation of AAPs, including the construction of farm structures. This definition qualifies the limitation on local regulation of farm structures including a building, enclosure, or fence for: (1) housing livestock; (2) raising horticultural or agronomic plants; or (3) carrying out other practices associated with accepted agricultural or farming practices, including a silo and including practices falling under the definition of farming as defined in 10 V.S.A. § 6001(22).⁴ This definition excludes a dwelling for human habitation.⁵

A municipality can contact the Agency of Agriculture to obtain a determination of whether something is considered an agricultural land use or a farm structure.

Examples of difficult determinations are a building used for seasonal horse boarding that does not always have the requisite number of horses according to the AAPs, or structures where products are sold that primarily come off site, such as from neighboring farms. Exempting this kind of farm stand, for example, from municipal review would support local agripreneurial activity. An option, in this case, would be to exempt structures with the caveat that off-site products must be of a certain type (e.g., local produce) or the building must be a certain size (e.g., related to the size of the on-site agricultural

⁴ The Act 250 definition, 10 V.S.A. § 6001(22): Farming, for purposes of Act 250, means: (A) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or (B) the raising, feeding, or management of livestock, poultry, fish, or bees; or (C) the operation of greenhouses; or (D) the production of maple syrup; or (E) the on-site storage, preparation, and sale of agricultural products principally produced on the farm; or (F) the on-site production of fuel or power from agricultural products or wastes produced on the farm; or (G) the raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding.

⁵ 24 V.S.A. § 4413 (d) (1).

operation in order to keep the amount of products sold at an appropriate scale).

Farming and Farm Structures in Flood Hazard Areas

Farming is an appropriate use for the floodway and encouraged by the Federal Emergency Management Administration (FEMA). However, farm structures are not allowed in the floodway. Farm structures can be constructed in the designated flood hazard area (the 100-year floodplain), if constructed in compliance with the National Flood Insurance Program (NFIP) standards. Currently, under a Memorandum of Understanding between the Agency of Agriculture Food and Markets and the Agency of Natural Resources, the review is referred back to the municipality, but that will change again under new flood rules. See guidance provided at: http://agriculture.vermont.gov/protecting_lands_waters/land_use/zoning_ag_exemptions

Supporting and Managing Non-Exempt Agricultural Uses at the Local Level

Communities have opportunities to support and manage these uses by adopting innovative municipal plan language and by ensuring that zoning appropriately supports these enterprises. Creating a more permissive environment for farm-based business uses should be done through both the municipal plan and regulation.

The two longstanding forms of local land use regulation in Vermont are zoning regulations and subdivision regulations. State statute allows for a broad range of approaches within those regulations, and there is a range of creativity among Vermont municipalities. A town in the forefront of new ideas for defining and encouraging agricultural use and enterprise is Hinesburg, with new zoning provisions adopted in 2013, and some ideas borrowed from its Shelburne and Charlotte neighbors. A number of towns have combined their zoning and

subdivision requirements into one set of unified development regulations. Essex Town and Bolton are examples who have had unified regulations in effect for some time. Norwich is a good example to look at for an innovative approach to determining density of new development, based on location and terrain, which is addressed in their subdivision regulations.

It is long held public policy in Vermont to support agricultural enterprises, but as agricultural land uses evolve into a mixture of enterprises combining the direct production of food or fiber with uses that bring many visitors or other components on to the farm, the boundaries of regulatory jurisdiction begin to blur. The next sections describe the basics in zoning and subdivision regulations, and how those may be applied to encourage agricultural use in a community. More innovative land use tools are also addressed. Included are sections describing some regulatory exemptions from municipal land use reviews, and trying to define agricultural vs non-agricultural uses on the farm.

II. Zoning Regulations: Typical Provisions

Zoning is the term most people understand and apply to almost any form of land use regulation and is still the most common tool used. It has been in place, starting with the New York City ordinance adopted in 1916, for a long time, becoming established in Vermont towns in the late 1960's. Based initially on protecting private property and public health from the issues of crowding and pollution from heavy industry, the community values that zoning is meant to address have evolved over time. It is a tool that can be shaped to meet whatever goals a community decides are most important.

For decades now in Vermont, zoning has been adopted by about 80 percent of municipalities. Most are slowly evolving from the historic zoning framework of separation of uses and performance measures

Municipal Authority

In Vermont, all municipal authority—including the authority to regulate land use and development—is derived from the state through municipal charters and state statutes, including the Vermont Planning and Development Act. Communities need to abide by and work within state law that, for drafting regulations, requires some knowledge of Chapter 117 of 24 V.S.A. The specific statutory authorization is provided in 24 V.S.A., Chapter 117, §§ 4401, 4402, 4410, 4411–4414.

The rationale for any new regulatory restrictions on the use of land must be set out clearly in the municipal plan. There are also particular limitations on local zoning in Vermont for agricultural uses (see § 4413); stated as: “Prohibitions on the local regulation of accepted agricultural and forestry management practices (including farm structures), as defined by the state.”

From “*Land Use & Development Regulations*,” [Vermont Land Use Planning Implementation Manual](#), 16-1 to 16-3.

to embrace mixed uses and more flexible standards. Land use regulation directly affects private property rights, reflecting a delicate balance between public and private good, such that an active public process is always needed to make certain the zoning tool is being customized to address community-supported goals and needs.

This section of this guide will focus on how to frame local land use regulation to encourage agricultural practices and accessory uses.

Districts and “Permitted” versus “Conditional” Uses

Most zoning bylaws delineate one or more zones or districts in a community and depict those on a zoning map. The bylaws then define the types of land use and dimensional standards for development allowed within each of the districts. The listed uses are aimed to include a mix of compatible, mutually supportive uses. Land use in areas of the community having the resources can be more carefully restricted to respect natural resources, or to support resource-based industries, such as agriculture.⁶

Nearly all zoning bylaws categorize uses as either permitted or conditional, depending on compatibility with the uses already established and the stated purpose of the district. Permitted uses, which are encouraged in the district, only need to obtain a zoning permit from the administrative officer. Conditional uses must first obtain approval from the Appropriate Municipal Panel (the development review board or zoning board of adjustment) as designated in the bylaws, after which the administrative officer must issue a permit. If a use is not explicitly listed, it is prohibited.⁷

A conditional use is a use that the community doesn’t want to exclude outright but which may need special conditions to ensure

Encouraging Agriculture

In a rural or agricultural district, single-family residences are usually permitted as a typical and compatible use. If the community is willing to go further, all uses other than those directly associated with agriculture, even single-family housing development, can be made a conditional use.

compatibility with surrounding land uses. To be approved, a conditional use permit must not have an “undue adverse effect” on the district and community. Factors that may determine the approval or denial of a conditional use permit include: compatibility with surrounding land uses, project design, land suitability and physical constraints, public services, facilities, access, and potential environmental impacts. Denials are rare. More often, “conditions” are placed on a conditional use permit to mitigate possible impacts.

Conditional use provisions in most towns allow for a variety of nonfarm uses in an agricultural zone. In updating the regulations with supporting agricultural land use in mind, these should be evaluated for compatibility with agricultural operations. Since a conditional use can only be approved if the municipal review board determines the project will not have an undue adverse effect on the concerns described in detail in the local regulations, it could be specifically noted in the regulations that proposed projects in an agricultural district need to be designed and managed to be compatible with farm uses. It may also make sense to allow other related farm uses to be permitted without board review, such as farmworker housing.

Conditional Use in Fairfield, Vermont

There are several examples of Vermont towns with rural zoning districts where housing is a conditional use, such as Fairfield. In Fairfield, the development regulations specify that all other uses other than defined agricultural and forestry business uses in the Agricultural District require conditional use approval. In fact, outside of the Village District, the other districts in Fairfield require conditional use approval for uses other than farming, forestry, recreation and essential public services.

⁶ Cloud and Monaghan, *Essentials of Land Use Planning and Regulation*.

⁷ Ibid.

Zoning regulations should prescribe general standards for permitted uses and may be supplemented by more specific criteria defined by the municipality, such as specifying that structures must be a certain distance from the property boundary, or they can be performance standards, or “any other standards and factors that the bylaw may include.”⁸ It is up to the Appropriate Municipal Panel to interpret and apply the standards. General standards allow more flexibility in dealing with problems, yet more specific standards can often be easier to apply.

Two Variations: Exclusive Agricultural Use Districts and Overlay Districts

Exclusive Agricultural Use Districts, which have not been adopted in Vermont to date but have served well in other locations such as upstate New York and parts of Pennsylvania, prohibit all new nonfarm uses and structures in an agricultural zone. This effectively separates agriculture from the spread of other conflicting uses and eliminates the possibility of the farm use being converted to other uses. Exclusive agricultural zoning is most appropriate where there is limited development pressure and existing large areas of unique or prime agricultural resources. Benefits of an exclusive agricultural zone include: protecting productive farms, avoiding conflicting land uses, maintaining a viable agricultural economic base, and maintaining open space or rural character.

This essentially creates an area devoted entirely to agricultural uses, but could create a situation whereby a farmer, unable to sell the land for future development, perceives a financial loss (“taking”) from the inability to convert the land.

While farming is permitted, other land uses can be restricted by

8 24 V.S.A. 4414 (3) (B) (v).

the municipality in designated agricultural districts. New nonfarm residences are often not a permitted use in an exclusive agricultural district, being included only as a conditional use. In that way, the conversion and fragmentation of farmland can be mitigated through siting and buffering conditions added to the permit. In exclusive use districts, site development standards can include a maximum lot area for nonfarm, residential use. Other provisions might include a maximum lot to depth ratio and large minimum lot widths and setbacks. What a town cannot do, however, is “zone out” agriculture within its boundaries.

An **Overlay District** is, simply, a district used in tandem with an existing zoning district. Overlay districts are allowed by statutory authority⁹ to supplement or modify zoning requirements otherwise applicable in underlying districts. Their purpose is to provide supplementary provisions for special areas, such as a floodplain, shoreland, or important agricultural resources.

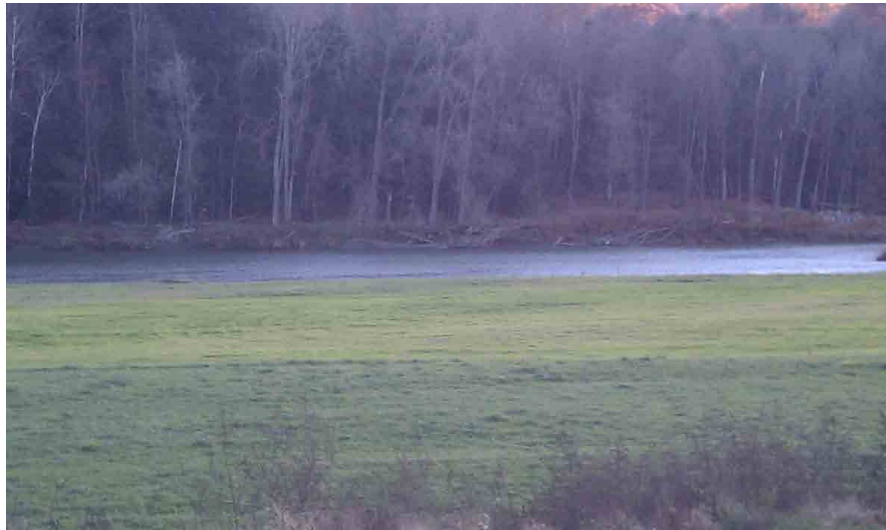
An agricultural overlay district further defines, restricts and/or prohibits certain uses or activities in the designated area. The overlay district may restrict nonagricultural uses, such as housing, by requiring more thoughtful placement of buildings to preserve tillable land or be more permissive for worker or farm family housing or other accessory uses to a working farm operation. The agricultural overlay could allow more intensive, expanded agricultural enterprises.

Agricultural Overlay Districts in Vermont

Agricultural overlay districts are not widely used in Vermont yet. In Peacham, an agricultural overlay (AO) district is superimposed over both the rural reserve and rural residential districts. In the AO district, “agricultural uses take precedence over all other uses.”

9 24 VSA 4414 (2).

Additionally, as with a more exclusive agricultural district, providing an agricultural overlay gives notice to existing and future landowners of the value the community places on that use in that area, while establishing review criteria for what is contained in the overlay. The difference between an agricultural overlay district and an exclusive agricultural district may be minor and depend on politics, development pressure, community understanding, and support. An exclusive agricultural district can permit all types of agriculture-related uses or service industries, in addition to those land uses the town can't regulate, and can restrict or prohibit other land development. The overlay district can be used to specifically target particular meadow or cropland without using property lines or roads as the district boundaries, allowing landowners more development flexibility outside of the overlay district, but the boundary lines will need to be clearly described in order to define the district on the ground and enforce the lines over time.



A floodplain overlay district could require a vegetated buffer along riverbanks like the one above. Though some land would be removed from productive use, the buffer would help protect topsoil loss from erosive flooding while protecting water quality from farmland runoff. Photo Credit: Peg Elmer

Site Plan Review and Conditional Use Review

Site plan review conducted by an Appropriate Municipal Panel may be required for all new uses other than single- or two-family homes and uses falling under the agricultural exemption. Site plan review does not evaluate the use but rather how changes to the parcel will fit in the neighborhood and align with the state plan goals for the area. Beyond landscaping, screening, lighting, signage, and other exterior concerns set out in the bylaws, this is also the venue for reviewing and applying conditions regarding traffic, parking, and circulation. These issues are often the most key for adjacent property owners.

If a municipality has adopted zoning, site plan criteria can also be incorporated into the conditional use review so that a project that normally would have been required to undergo both site plan and conditional use review will only go through one consolidated review process.

Since site plan review helps assure new development is built responsibly and does not create problems for its neighbors, site plan review can be used in more urban areas, such as Burlington or Winooski, to ensure a new, nonexempt, agriculturally related use, such as a retail operation selling local produce and products not located on a farm, is compatible with neighboring uses. While conditional use review may not be required by a town seeking to encourage agripreneurial uses such as, say, a café on a farm, site plan review can still provide a forum for devising operating conditions that will be applicable and reasonable for a rural context.

Just as with other uses, site plan review regulations for non-exempt farm businesses should be written with consideration for the unique characteristics and needs of agriculture so that farmers are not discouraged from making changes and improvements needed to remain economically viable. Site plan review regulations

SUSTAINING AGRICULTURE: 4. Local Regulatory Context

should consider farming's differences from and similarities to other commercial and industrial activities, including financial constraints, seasonality, farm location, size and type of agriculture, and the increasing importance of direct marketing. Site plan review regulations for non-exempt farm businesses can be modified to reflect the differences. For example, parking needs for a seasonal on farm café may not need to be subject to the same regulations as parking for other commercial uses.

Conditional use review is for any use or structure that requires conditional approval before a zoning permit can be granted. Conditional use review has an identified review process for proposed projects that must meet a set of general standards. Such standards often include how the project fits with the character of the area affected, traffic, adopted bylaws, renewable energy, conformance with the town plan, or performance standards.

Conditional Use Review Examples: Charlotte and Hinesburg

Charlotte and Hinesburg include bylaw provisions specifically allowing farm cafés. Their regulations still require conditional use review and site plan review, which often contain certain restrictions (e.g., limiting the size of the building and occupancy allowed). Those communities have sought to create review standards to reduce barriers to agripreneurism and expand economic viability for farms, while still considering impacts from traffic on neighboring uses.

In Charlotte, a farm café is allowed in the designated zoning district subject to conditional use review, site plan review, and meeting five requirements. Requirements include meeting a certain gross floor area, minimum lot size, and gross sales and gross income thresholds.

As farmers strive to diversify, creating new products and services in order to remain viable, site plan and conditional use review remain powerful tools for the community to apply in protecting neighboring uses as well. The community needs to take care, however, that the regulations are balanced to give value-added, on-site production and agripreneurism, that is not exempt from municipal review, an opportunity to prosper.

Some kinds of commercial activities, such as farm stands or other farm uses that may be related to crop production cycles, could already be exempt from local regulatory review by state statute. Uses that exist for short periods of time; make minimal on-site alterations or improvements; generate low traffic numbers; and/or involve small numbers of employees are all good candidates for exemption via local regulation. Weighing the likelihood of low impact, in relation to community benefit, is a sound basis for excluding such activities from conditional use and site plan review.

For communities uncomfortable with complete exemption of farm-related activities that are subject to local land use review, the local review process could establish reduced or modified site plan review criteria. Agriculture-friendly communities will ensure their local conditional use and site plan review regulations provide critically needed flexibility for farm businesses.

Accessory Uses

Zoning typically allows for a single primary use on a lot, along with one or more accessory uses or structures (such as accessory apartments). Accessory uses or structures are usually subordinate to the primary use. An accessory use or structure that is appurtenant to the primary use may be allowed, so long as it falls within the parameters outlined in the zoning regulations. Since most on-farm enterprises can be secondary or accessory to farming as the principal use, this is a

Case Study: Zoning for Agricultural Enterprises in Shelburne¹⁰

Many municipalities want to promote businesses that harness Vermont’s agricultural heritage, while ensuring that the “commercial” doesn’t unintentionally overwhelm the “agricultural.” The Town of Shelburne faced this question in the mid-2000s. That’s when a local wine producer (Shelburne Vineyard) applied to develop a building for winemaking as well as for wine tastings, tours, and special events next to a proposed new vineyard.

Instead of rezoning the area as a commercial district—which could have led to overly intensive commercial development in an area not planned for such development—the Planning Commission defined a new use, designated “Integrated Agriculture,” which (after 2009) is only allowed as a conditional use. Integrated Agriculture is defined in the zoning bylaw as:

Hybrid land use and development incidental and directly related to the principal farming activity being conducted on-site excluding the slaughter of livestock or poultry and consisting of the following “Primary Integrated Agricultural Activities:”

- ☛ *The on-site preparation and processing of crops or produce not principally produced on the farm;*
- ☛ *The storage and sale of crops or produce not principally produced on the farm or the resulting products from such crops or produce;*
- ☛ *The sampling and tasting of crops and produce not principally produced on the farm or the resulting products from such crops or produce; and/or*
- ☛ *Tours of growing areas and storage and processing facilities.*

This definition covers farm-related activities like the processing of foods not produced on the farm and the sale of products produced on or off the farm. If these activities account for the majority (at least 2/3) of the business’s revenue, the business can also engage in “secondary integrated agricultural activities” – namely the sale of non-farm products, and the hosting of educational and cultural events related to farming.

Shelburne reviews Integrated Agriculture uses against specific conditional use standards, requires site plan review, and even has its own sign standards. The Town is allowed to regulate these “incidental and directly related” farm uses because they do not fall under the Accepted Agricultural Practices (AAPs are exempt from municipal regulation). The specific review criteria help uphold the rural district’s purpose, which is “to maintain and enhance open spaces, and to protect agricultural lands, soil, water and other scenic and natural resources.”

The Integrated Agriculture definition, and associated review standards, carefully links the commercial activity to the agricultural enterprise. This helps maintain a working, rural landscape, while allowing Shelburne to manage potential impacts resulting from farm diversification and promote “agripreneurism.” Read Shelburne’s zoning ordinance here: http://www.shelburnevt.org/HTML/ShelburneZoningMay_2012.pdf



The Shelburne Vineyard, with its early and successful entry into this value-added sector, has helped spark similar ventures all over Vermont. Photo credit: Shelburne Vineyard.

¹⁰ Credit to Dean Pierce, Shelburne Planning Director, for background information.

powerful provision to work with for accommodating expansion of the uses on the farm.

III. Zoning Regulations: Dimensional Requirements

Zoning regulations contain dimensional requirements or standards. These specifications—such as the size of a lot, height of a structure, and a structure’s setback from the edge of a lot—can help to establish future development patterns deemed desirable by the community. Dimensional standards may be applied to all forms of development within a certain zoning district or only to certain types of development. Standards are often established as minimums (such as lot size), but they can also be maximums (such as building height and, especially in the case of protecting against fragmenting agricultural resource lands, lot size).

Lot Size

Lot size requirements are a traditional part of zoning regulations, typically mandating a minimum or maximum lot size by zoning district or use in various parts of a community, such as half- or quarter-acre lots in the town center and three-, five-, or ten-acre lots in the districts beyond the village or town center areas. Lots larger than the minimum can be created but not smaller. Classic village neighborhoods built before zoning would be illegal under most zoning bylaws today. Mandating larger lots, which use up more land than is needed for a house lot, creates sprawl. This zoning is still prevalent in rural areas like Vermont when public water and wastewater systems are absent.

Towns with zoning ordinances know about minimum lot size requirements. They are the staple of most zoning districts. For example, many “rural residential” districts require minimum lot sizes of five acres or more. But when large tracts of land are divided

up (whether all at once or a little bit at a time) into lots of one to five acres, it signals the beginning of the end for “rural character” and can challenge the viability of agricultural production. Although, the buyers of three-acre lots will have private open space, this should not be confused with rural. In time, this low-density suburban sprawl will compromise the rural.

Large Lot Zoning

Requiring a very large minimum lot size within certain zoning districts is large lot zoning. This zoning has been used as a tool to accommodate and encourage conservation of land (fewer homes are possible) or resource-based uses, such as farming or forestry. The result is a pattern of very scattered, low-density development. While understood now to be a cause of sprawl and fragmentation of undeveloped resource lands, when the use of the area is primarily housing or development restricted to small building envelopes within those lots it can help protect fragile areas by reducing disturbed area and impervious surfaces.¹¹

Minimum required lot sizes can be as many as hundreds of acres, as is done in the West to accommodate range-land farming and forestry operations. In Vermont, large lot requirements tend to be from twenty-five to fifty acres. This has been triggered in part by the former twenty-five-acre requirement for parcel enrollment in the state’s current use tax abatement program.¹²

Anything over one acre is considered “large” for purposes of residential development. Large lot zoning is no longer viewed as

¹¹ Vermont Land Use Education & Training Collaborative, “Open Space & Resource Protection Regulations,” *Vermont Land Use Planning Implementation Manual*, p. 19-6, April 2007.

¹² Ibid.

“If you think five acre zoning would protect farmland, I suggest you do a build-out analysis and look at what the land would look like after all those lots were created.”

—Lee Krohn, Manchester Planning Director, quoted in *Sustaining Agriculture: A Handbook for Local Action*

effective for protecting farmland because the low density fragments resource lands into lots that are, as Mollie Beattie¹³ used to say, “too big to mow, but too little to plow.” This technique, of requiring large lots for individual homes and taking large parcels out of production for that purpose, results in scattered residential sprawl, which is detrimental to maintaining farm use.¹⁴

Most communities use subdivision regulations, in concert with their zoning bylaws, to control building densities and community settlement patterns. Measures communities have taken to separate lot size and density standards by adopting a choice of similar tools, and to promote the clustering of development within a subdivision, include conservation or open space subdivision design, required planned unit development (PUD) and various forms of density-based zoning. Such standards may also be used to protect agricultural land and resources.

¹³ Mollie Beattie was Commissioner of Forests and Parks under Gov. Madeleine Kunin, and had impacts on Vermont land use policy far beyond that position. Subsequently, President Clinton appointed her to lead the U.S. Fish and Wildlife Department. She died in that position in 1995.

¹⁴ Ibid.

Lot Coverage, Setbacks, and Buffers

Lot coverage is that portion of a zoning lot that, when viewed from above, is covered by primary structures, accessory structures, parking areas, driveways, walkways, or roadways. This includes areas covered with gravel, stone, shell, impermeable decking, pavers, permeable pavement, or any other man-made material. Lot coverage is typically restricted to a percentage of a lot in order to reduce the amount of storm-water runoff from impervious surfaces.

Lot coverage could be a consideration for agricultural properties that have many buildings, if located in a more urban or suburban location where the lot size is small and the use is not exempted from local review as an agricultural use.

More typically associated with protecting water quality along rivers, streams, or shorefront, buffers and setbacks can be required to separate farm and nonfarm uses to reduce conflict between the two. New development should not place the burden on existing farms to give up boundary land as a buffer zone between agricultural and residential uses. New residential development should provide for its own buffer zone and/or landscape plantings for screening when necessary.

Agricultural Buffer Zoning Language: Schaghticoke, New York

Agricultural buffers: Buffering of existing farms from new uses. New residential development located adjacent to existing farmlands or active farm structures including, but not limited to, barns and silos shall provide for its own buffer zone and/or landscaping for screening when necessary. The width of the buffer shall be determined based on topography and proposed site layout but shall not be less than 50 feet.

Form-Based Codes¹⁵

Form-based codes, an increasingly accepted, design-based form of development regulation, is also being adapted for use in Vermont—to date, mostly in urban communities such as Newport City and Burlington. Rural towns in Vermont, such as Huntington, are also working to apply these concepts, but still primarily to their village centers rather than to the open land areas of town. As applied, form-based codes are often incorporated in hybrid regulations that also include elements of traditional zoning.

Similar to urban form-based codes, a rural form-based code that focuses on the form of structures on agricultural land rather than the types of allowed uses could be used to promote agripreneurism as an integral part of Vermont’s traditional working landscape. A properly tailored code aimed at structural design and impacts on the landscape, rather than specific uses, can encourage economic development that results in more resilient rural communities. So far, no examples of form-based codes have been adopted that apply to Vermont’s most rural areas or that address rural farm-related enterprise that would be regulated locally, although suggestions on addressing forms of built development near farmland are included as part of “Open Space Sectors” in the American Planning Association’s Smart Code.¹⁶

¹⁵ Excerpted from Vermont Law School; *Facilitating Innovative Agricultural Enterprises*, 17-18 (2012).

¹⁶ American Planning Association, PAS Report 556, Smart Codes: Model Land-Development Regulations <https://www.planning.org/research/smartgrowth/>

IV. Regulation of On-Farm Composting Facilities

Overview

Composting offers environmental and economic benefits to farmers and to the public at large. In agriculture, composting provides a way to manage animal manures and other organic material (such as food scraps and leaf and yard residuals)¹⁷ to improve the fertility and texture of soil and to produce a saleable product. Recent state legislation requires the transition over the next several years from treating food scraps, leaf and yard residuals as waste to managing them as a resource. This will create new economic development opportunities for farmers, entrepreneurs, and communities. Municipalities can help by revising municipal plans and adjusting bylaws to accommodate composting facilities on farms, in conjunction with their regional solid waste plan.

This section introduces the primary benefits of composting and the associated regulatory issues. It clarifies which levels of on-farm composting facilities are regulated by the state, rather than local government, and the options available for local regulation that supports composting.

¹⁷ “Organic materials” refers to plant and animal products, e.g. leaf and yard residuals, all food scraps including: veggies, fruits, breads, cereals, and grains, eggs & eggshells, nuts & nutshells, coffee grounds & tea bags, natural oils, fats & dressings, all dairy products, all meat products including meat, bones, fish, shellfish & their shells. The use of the term “organic” does not refer to organic food. All food, whether organic or not, is considered an “organic material” because it will decompose back into soil. (from 2012 [Vermont Solid Waste Management Rules](#), Chapter 11)

Why is On-Farm Composting Important?

Composting provides a sustainable source of fertility for growing crops: Vermont's Farm to Plate Initiative recognizes the production and use of compost as a valuable component of sustainable farming operations. Farmers may use compost as an alternative to commercial fertilizer, especially for the benefits it provides over conventional use of manure and commercial fertilizers. The use of compost can:

- 🍷 Reduce soil erosion and runoff of nutrients
- 🍷 Improve soil structure and health
- 🍷 Increase crop and food production
- 🍷 Improve plant disease resistance

These benefits from the production and use of compost contribute to long-term farm viability by protecting and improving Vermont's soils and aquatic systems.

Compost can turn a solid waste problem into an agricultural opportunity: Within Vermont's new phased-in landfill ban (Act 148 or Universal Recycling) on food scraps, leaf and yard residuals, and clean wood, municipalities and regions are moving toward a closed-loop system to manage these materials as a resource. The growing interest in diverting organic materials from landfills provides an opportunity to diversify farm income.

Food scraps and other organic materials such as leaf and yard residuals, make up approximately 30% of household solid waste. This poses significant challenges to Vermont's limited landfill space. In addition, landfilled organic materials produce methane—a greenhouse gas 21 times more potent than carbon dioxide—as they decompose. Only about 20% of the methane emissions from landfills can be captured. Composting offers a safe way for discarded organic

Universal Recycling Timeline: Key Organic Diversion Dates

July 1, 2015

- 🍷 Statewide unit based pricing takes effect, requiring residential trash charges be based on volume or weight
- 🍷 Transfer stations/Drop-off Facilities must accept leaf and yard debris
- 🍷 Food scrap generators of 52 tons/year (1 ton/week) must divert material to any certified facility within 20 miles

July 1, 2016

- 🍷 Leaf, yard, and clean wood debris are banned from the landfill
- 🍷 Haulers must offer leaf and yard debris collection
- 🍷 Food scrap generators of 26 tons/year (half ton/week) must divert material to any certified facility within 20 miles

July 1, 2017

- 🍷 Transfer stations/Drop-off Facilities must accept food scraps
- 🍷 Haulers must offer food scrap collection
- 🍷 Food scrap generators of 18 tons/year

July 1, 2020

- 🍷 Food scraps are banned from the landfill



materials to be transformed into a resource for building soil health and fertility, while reducing methane and sequestering carbon so it doesn't release into the atmosphere. Food scraps can be used directly as a source of nitrogen in a compost mix, or used to feed livestock first and then compost the manure. Heat generated by the composting process can also be captured to benefit other agricultural processes, such as to warm water or heat greenhouses.

Vermonters support composting on farms over other locations:

Since 2007, no fewer than four stakeholder groups have indicated a clear preference for siting composting facilities on farms throughout Vermont. To increase the number of composting facilities in Vermont, and realize the significant benefits of on-farm siting, infrastructure must be built. The Agency of Natural Resources estimates that as of 2014, Vermont has 35% of the permitted infrastructure it needs to effectively “close-the-loop” and manage all organics the state produces. If consumers, institutions, and businesses can drastically reduce the amount of food residuals they generate—through careful planning and purchasing (i.e. source reduction), and by donating to food banks—infrastructure needs will be reduced. However, even with aggressive source reduction and food rescue, Vermont will still need more composting and organics processing facilities. An increase in on-farm composting can meet some of that need.

Use of compost offers significant benefits on and beyond the farm:

While the benefits of using compost in gardening and landscaping are well known, the use of compost for erosion control and to filter and retain stormwater is just beginning to be recognized. Products such as Compost Filter Socks—mesh tubes filled with a specified coarse compost mix—help improve water quality by filtering sediments, nutrients, and toxins out of runoff.¹⁸ They can also prevent erosion across a slope or channel, and are often easier to manage and less expensive to use than other erosion control and stormwater management practices.

Micro-organisms that feed on the carbon in compost thrive on the very nutrients—nitrogen and phosphorus—that if left to flow into

streams unchecked, damage our water bodies. Using compost socks, berms, and blankets, or amending soils with compost helps to hold nutrients where they belong—in the soil—where plants can use them. The improved porosity of the soil from adding compost retains water far better than compacted soils. In the face of climate change, this capacity to act as a sponge will become increasingly important to buffer the extremes of flood and drought that climate models predict for Vermont and the Northeast.

Statutory Authority/Limitations

Permitting for on-farm composting is still unfamiliar to most municipal officials, but with a basic knowledge of the state permitting thresholds, municipalities can find opportunities to customize their local regulations in ways that enable a wide range of on-farm composting activities in suitable locations.

On-farm composting is considered farming for the purposes of the local agricultural exemption only if it is not regulated by the Agency of Natural Resources (ANR) through the state solid waste management rules. As illustrated in Table 1 (next page), only farms that compost on-farm materials are considered exempt from local permitting. The one exception is, these farms may bring an unlimited quantity of ‘bulking agents’ (wood chips, sawdust, spoiled hay, coffee chaff, etc.) on to the farm for the purpose of composting on-farm material and still qualify for the local agricultural exemption. If the facility at some point receives certification from the ANR, the municipality is restricted in its review under local zoning.

If the composting facility is subject to local permitting, only the portion of the farm that is used for composting is subject to review. Other parts of the farm and farming operation continue to be exempt from local permitting. VAAFM advises municipalities to interpret the statute governing the exception with these guidelines in mind when regulating on-farm composting through zoning.

¹⁸ A few peer reviewed studies: <http://www.epa.gov/composting/benefits.htm>
<http://www.epa.gov/wastes/conservation/composting/basic.htm>
http://www.npdestraining.com/Nutrient_Pollution.html
http://www.nyc.gov/html/dep/pdf/ms4/reducing_pollutants_of_concern.pdf

Table 1: On-Farm Composting Permit Thresholds

No Municipal Regulation	Municipalities May Regulate		
<p>Backyard Composting Exemption</p>	<p>Vermont Agency of Natural Resources Composting Rules Vermont Solid Waste Management Rules 2012, Subchapter 11, Organics Management</p>		
<ul style="list-style-type: none"> De minimis or backyard composting exemption: less than 100 cy/yr of combined organic material. 	<p>Small-Scale Composting</p> <ul style="list-style-type: none"> Manage up to 2,000 cy/yr of food residuals Manage less than 5000 cy/yr total organics No more than four acres involved with the composting activity, not including acreage required for liquid nutrients management Must follow Accepted Composting Practices (ACPs) Solid waste approval via registration process 	<p>Medium-Scale Composting</p> <ul style="list-style-type: none"> Manage up to 5,000 cy/yr of food residuals Manage less than 40,000 cy/yr total organics No more than ten acres involved with the composting activity, not including acreage required for liquid nutrients management Solid waste approval via categorical certification process 	<p>Large-Scale Composting</p> <ul style="list-style-type: none"> Manage greater than 5,000 cy/yr food residuals and/or greater than 40,000 cy/yr of combined organics Greater than ten acres, not including acreage required for liquid nutrients management Requires full solid waste certification
<p>VAAFM Jurisdiction under Accepted Agricultural Practices</p>			
<ul style="list-style-type: none"> On-farm compost that is made with farm wastes, manures, bulking agents, and up to 1,000 cy/yr food processing residuals. 			

Act 250: 10 V.S.A § 6001(3)(D)	
On-Farm Composting Exempt from Act 250	Act 250 Permitting Required
<ul style="list-style-type: none"> compost is principally produced on the farm; compost is principally used on the farm; compost is made only with manure produced on the farm and unlimited bulking agents; compost is made on a livestock or poultry farm, only with manure produced on the farm, up to 2,000 cy/yr of inputs approved in the ACPs, including food residuals from any source or imported manure or both, and unlimited bulking agents; maximum size 10 acres or 10 percent of parcel, and gross income from farming exceeds that from composting; or compost is made on a cultivation or crop farm that complies with the ACPs, from up to 5,000 cy/yr total organic inputs allowed in the ACPs, including up to 2,000 cy/yr food residuals, maximum size four acres or 10 percent of parcel, gross income from farming exceeds that from composting, and obtains a Categorical Certification from DEC. 	<ul style="list-style-type: none"> Act 250 permitting required for all medium- and large-scale composting facilities.

Limitations on Bylaws Regulating Composting

Municipalities are further restricted in regulating composting operations that fall outside the agricultural exemption if they are categorized by ANR as a Regional Solid Waste Management Facility

which requires Solid Waste Certification. As depicted on Table 1, a Solid Waste Facility Certification is required for Large-scale Composting Facilities. This Certification signals that the composting operation is now considered a necessary public facility, like state/municipal buildings and hospitals. Local zoning cannot prohibit these uses but can direct them to locations that make sense for the community. While the site plans for those facilities can be reviewed and regulated, the regulation cannot have the effect of prohibiting the use.

Restrictions on Review of Public Facilities

Under 24 V.S.A § 4413 (limitations on municipal bylaws) regional solid waste management facilities certified under 10 V.S.A. Chapter 159 may be only be regulated:

... with respect to location, size, height, building bulk, yards, courts, setbacks, density of buildings, off-street parking, loading facilities, traffic, noise, lighting, landscaping, and screening requirements, and only to the extent that regulations do not have the effect of interfering with the intended functional use ...

ANR Regulation of Composting

Permitting by ANR addresses most impacts from composting that might concern adjoining property owners and others in the community including provisions ensuring that the composting operation will “properly compost materials, destroy pathogens, not create a threat to public health or the environment, and not create objectionable odors, noise, vectors or other nuisance conditions.”¹⁹

ANR permitting involves the following:

👉 **Small Composting Facilities** must register with ANR and

their solid waste district.

👉 **Medium Composting Facilities** must submit an application for Categorical Certification including a facility management plan, and give notice to the municipality and adjoining property owners, with the option to request a hearing. If categorical certification is required via state review, municipal zoning review is restricted via Title 24 Chapter 117 limitations.

👉 **Large Composting Facilities** must to obtain Solid Waste Certification that involves full public notice and a public hearing, upon request, conducted by ANR (see Chapter 3 of the rules). Municipal zoning review is restricted.

For each level of composting facility, siting requirements such as minimum setbacks to adjoining properties and water resources are defined, as well as a need to conform with the local or district solid waste plan. In addition, all facility operators at every level must take a one-day Compost Operator Certification training (approved by ANR or equivalent), meet operational requirements, maintain records and report periodically.

Except for composting that also qualifies for exemption from local review, ANR permitting applies to all non-exempt composting facilities regardless of whether the operation is part of a farm or is a non-farm municipal or commercial composting business.

Act 250 Regulation of Composting

Act 250 permits are required for all composting that meets the ANR Large Composting Facility threshold. For smaller facilities, the determination of Act 250 jurisdiction involves a list of factors designed to make a distinction between “farming” and “development” as detailed in the Act 250 definitions -10 V.S.A § 6001(3)(D)(vii) – and summarized on Table 1.

¹⁹ See 2012 [Vermont Solid Waste Management Rules](#), Chapter 11

When a composting proposal triggers Act 250 review, additional criteria are addressed including impacts on traffic, aesthetics, historic and archaeological resources. Full notice of a pending permit is provided to adjoining landowners, interested parties and the municipalities.

Role of Solid Waste Implementation Plans

All municipalities in Vermont are required to prepare a solid waste implementation plan (SWIP) that complies with the requirements of the state's Agency of Natural Resources solid waste plan. Several municipalities in an area may follow a process to form a solid waste district and the district prepares one SWIP which covers all the municipalities in that district. Municipalities and districts may include in their SWIP criteria for siting solid waste facilities, including composting facilities. If your town is not part of a solid waste district, work with your regional planning commission, your solid waste town alliance/group, or your legislative body to consider including composting in your SWIP. Municipal plans and SWIPs should be consistent in how they address composting.

Local Implementation: How Municipalities Can Support On Farm Composting

There is a great need for composting facilities as Vermont approaches 2020, when land-filling food residuals (food scraps) and all other organic materials will no longer be allowed in Vermont. With a statewide commitment to managing these materials as a resource, municipalities have a timely opportunity to structure their regulations to accommodate on-farm composting operations in agricultural areas. Towns can also enable composting facilities at appropriate scales to be permitted in non-agricultural districts when they are compatible with surrounding land uses.

Composting as Accessory to Farming

A zoning conundrum is created when on-farm composting, which may be integral to the farm, falls outside the agricultural exemption and is not listed as a permitted or conditional use for the district in the local zoning regulations. A development permit would be required for the composting facility but cannot be obtained because it is not listed as permitted or conditional. The administrator of the local regulations will likely determine that the use is prohibited.

Possibly, a remedy to this situation is for on-farm composting to be considered a use that is accessory to farming, along with all other non-exempt farm activities that the municipality determines to be suitable for the district. If the local zoning regulations do not already allow accessory farm uses, then they can be added and a definition provided. The definition of accessory farming uses should be customized to fit the circumstances of the community.

Example Definition - Agricultural Accessory Use:

Customary on-farm accessory uses that are directly related and subordinate to the agricultural operations. Such activities need not be subordinate to the agricultural operation in terms of revenue, but shall be subordinate in terms of overall land use (e.g., land area, structures utilized). Including, but not limited to: corn maze, petting zoo, farm tours, classes, scientific research, trails for non-motorized recreation, composting, u-pick operations, product tasting, retail sales of products produced on the farm (including products that are produced and then processed on the farm), retail sales of a limited number of agricultural products not produced on the farm as long as such sales are clearly subordinate to retail sales of on-farm products.

From: *Facilitating Innovative Agricultural Enterprises: Considerations and Example Language for Vermont Municipalities*; 2012; Vermont Law School Land Use Clinic.

Regulating Composting to Fit the Community

On-farm composting that does not meet the definition of farming can still be regulated by municipalities in a variety of ways. Since the ANR permits categorize composting facilities into Small, Medium and Large Facilities (see Table 1) municipalities may find it useful to adopt those categories in defining the levels of composting appropriate in the community's rural districts.

In land use districts where the stated purpose is to support agriculture, consider designating all on-farm composting as permitted uses, since the ANR and Act 250 permits are designed to address most issues of concern to the community, and since state permitting covers all non-exempt composting. In rural residential districts or other types of districts where competing uses are more likely to occur, the larger composting facilities may be better designated as conditional or excluded.

It is important to note that vegetable farms are sometimes located on parcels of 10 acres or fewer in a neighborhood that may be primarily low-density residential. Vegetables require compost with high levels of nutrients that can be best supplied by adding food residuals to the compost mix. Because the thresholds for ANR permitting are based in part, on the volume of food residuals received by the compost facility, municipalities could consider ways to accommodate not just small but also medium compost facilities even in some residential districts, if vegetable farming is likely to take place in those areas.

Site Plan Review

Municipalities that wish to promote sustainable farming practices can choose to support on-farm composting facilities by treating them as an integral part of the exempt farming operations and not as commercial uses that would be subject to site plan review under 24 V.S.A. § 4416. Exempting some or all types of composting facilities

from site plan review would enable those facilities to obtain an administrative permit from the town instead of having to first go before a development review board or planning commission. The exemption from site plan review would need to be clearly stated in the land use regulations.

If site plan review is required for any type of composting facility or for all non-exempt farming activities, municipalities should make sure that the submission requirements and the criteria for review make sense for a rural, farm setting. For example, standards for landscaping and lighting are commonly imposed on applicants for site plan approval. Strict adherence to those standards may be appropriate for new retail development in urban or suburban settings, but may be irrelevant on a farm. On the other hand, screening and traffic circulation may be very important considerations for neighboring properties. Farm-appropriate standards should be specified in the bylaw if site plan review is required.

Conditional Use Review

For municipalities that want to accommodate composting but need to ensure that the community members have maximum opportunities for review, especially in those districts where existing uses might be incompatible with composting facilities, municipalities could choose to regulate certain categories of on-farm composting as a conditional use, taking into account the layers of state review that already apply. As discussed above under site plan review, any time on-farm composting is defined as a conditional use, standards for review should be customized for the agricultural context.

Non-Regulatory Approaches

Regulations can only go so far in helping municipalities achieve their goals to support agriculture and local food systems. Non-regulatory strategies are also necessary to educate people about the importance

of compost to address the fertility needs of farms, create new business opportunities and jobs, process organic materials that would otherwise be land-filled, decrease greenhouse gas emissions, enhance the sustainability of Vermont communities and farming, and improve soil structure that can reduce the need for irrigation and contribute water quality improvements. Strategies could include:

- 👉 Tours of on-farm composting facilities to help people understand how composting works
- 👉 Using compost products for local public works projects, such as filter socks for erosion control and as a soil amendment for public landscaping and stormwater management.
- 👉 Schools source separating and recycling food scraps. (Successful school programs already exist throughout the Chittenden, Northeast Kingdom, and Central Vermont Solid Waste Districts and in dozens of other schools throughout Vermont.)
- 👉 Composting facilities can use compost for on-site stormwater management. This practice can lower contamination rates and help the facilities comply with the site management plan for protecting water quality.²⁰

²⁰ BioCycle Magazine, “Kevin Bacon Compost Equivalents,” page 45, May 2013.

V. Summary of Zoning Practice²¹

There are a variety of possible approaches to local regulation that can support agripreneurial enterprises:

- ▶ **Define “agriculture” broadly:** When defining “agriculture,” municipalities may be more permissive than state laws: that is, municipalities may elect to exempt farm-related uses beyond those exempted by the state from local regulation. For example, a municipality may define “farming” or “agriculture” to include the sale of prepared food, as long as components of that food are produced or processed on the farm. The Town of Pomfret has a permissive ordinance that defines farming more broadly than the state, encouraging “agritourism . . . to promote the viability of agriculture in Pomfret, provided that it does not negatively impact the health, welfare or safety of nearby residents.”
- ▶ **Broaden and define allowed agripreneurial uses:** Some towns have adopted zoning districts that address specific agripreneurial uses. In Vermont, the towns of Charlotte and Hinesburg have bylaw provisions specifically allowing farm cafés. Farm cafés still require conditional use and site plan review and contain certain restrictions (e.g., limiting the size of the building and occupancy allowed), but by addressing these factors in the review process, there is guidance about how it can be accommodated and its impacts managed, rather than questions about whether it is allowed. A key part of incorporating such uses into the bylaw is including a clear definition of what that use includes (see sidebar, page 20).

²¹ The text for this section draws heavily from two sources: *Facilitating Innovative Agricultural Enterprises: Considerations and Example Language for Vermont Municipalities*, Vermont Law School Land Use Clinic, 2012; and Vermont Natural Resources Council’s Community Planning Toolbox: <http://vnrc.org/resources/community-planning-toolbox/>

► **Farm worker housing:** Zoning bylaws can also allow for agriculturally-related uses and structures as accessory to an active farming operation. This makes it possible to put housing near the farm – rather than having to subdivide a separate lot for farm worker housing, which could lead to farmland being taken out of production to meet minimum lot size requirements. Farm worker housing is often defined and addressed as accessory housing under local regulations. Agripreneurial activities as accessory uses or structures may simplify the inclusion of these enterprises in certain districts, but a community must still decide whether and how to review any new impacts that may come along with these uses – for example, by making farm worker housing subject to conditional use review, and by including supplemental standards that pertain to this use.

The town of Hinesburg includes standards for farm worker housing in its general regulations, specifying that it “must be located on, or adjacent to and in the same ownership as, a parcel that is being actively farmed” and that it “must conform reasonably to the size and scope of the farming activity.”²² The town of Swanton discusses farm worker housing in its “Accessory Dwelling” section, listing several standards that this particular type of accessory dwelling must meet.²³

► **Allow multiple uses:** Communities may also choose to allow multiple uses, rather than assigning one principal use with accessory uses, on a lot—for example as an “agricultural mixed use.” This use can be defined as a category within the use tables in the zoning bylaw with site plan, conditional use, or performance review standards to address issues of particular concern to the community.

²² *Zoning Regulations, Town of Hinesburg, Vermont*, as amended October 17, 2011, pg. 92-92, http://www.hinesburg.org/planning/zoning_regulation_101711.pdf.

²³ *Land Use and Development Regulations for the Town and Village of Swanton*, adopted by the Swanton Town Selectboard and Swanton Village Trustees June 26, 2001. Last amended March 4, 2008. p. 55, <http://www.nrpcvt.com/ZoningBylaws/SwantonZoningBylaws.pdf>.

The Importance of Clear Definitions and Standards

While addressing a variety of agripreneurial uses in a zoning bylaw is important, defining those uses is equally important. For example, what exactly is a farm café? A farm stand? What’s a tasting room? Clear definitions are essential for helping both the applicant and the reviewing body understand what does – and doesn’t – fit in an agricultural area.

Developing clear review standards is equally important. Development review standards are requirements, found in a zoning bylaw or subdivision regulation, which a proposed development must meet. Whether a proposal is reviewed by a zoning administrator, a planning commission, development review board, or a zoning board of adjustment, standards serve as a kind of checklist to determine if a development proposal is compatible with the community’s goals.

Clear standards are more important than ever before because of a 2008 Vermont Supreme Court Decision (Appeal of JAM Golf, LLC, 2008 VT 110). In this decision, the Court struck down portions of a South Burlington zoning bylaw that required “protection” of “important natural resources including streams, wetlands, scenic views, wildlife habitats and special features such as mature maple groves or unique geologic features.” The take-home lesson of the JAM Golf decision is that if standards for protecting habitat and natural areas are to be legally defensible, they have to be clear, specific and consistent.

Adapted from *Community Strategies for Vermont’s Forests and Wildlife*, Vermont Natural Resources Council, September 2013. For more information, please see <http://vnrc.org/programs/forests-wildlife/guide/> pp: 36-40

► **Site plan review:** A municipality may customize its site plan review requirements and review criteria to promote agripreneurial enterprises. See the previous site plan review section of this guide for more information about using it as a tool to promoting agriculture generally.

Agriculture and Regulation: Striking a Balance

It is important to balance the promotion of agripreneurism with the impacts that these farm-related uses may create. Exempting agripreneurial uses from any review, while encouraging a business, may leave the town without a public process to review and mitigate possible impacts such a project may generate. This is an important consideration because of potential noise and traffic impacts on adjoining property owners, possible additional wear and tear to municipal infrastructure (especially roads), and other impacts (stormwater runoff from parking areas, for example). Communities should work to strike a balance that promotes this type of economic development while reasonably managing any impacts.

Considerations:

- ☛ By linking commercial activity to the farm’s agricultural activity, communities can help keep development at an appropriate scale, especially in areas that are more traditionally rural.
- ☛ Since farming is exempted from review under local land use regulations in Vermont, there is sometimes a perception that other commercial use related to and located on a farm can’t (or shouldn’t) be regulated. Municipal officials may need to educate applicants and community members about how local regulations apply to agripreneurial uses for such regulation to be effective.
- ☛ Revenue criteria (tracking how much is earned by activity) are uncommon and could be time consuming to enforce, especially as agripreneurial uses proliferate.

☛ Farms may diversify incrementally, and most towns are still developing tools that address potential impacts. Towns may find it challenging to retroactively require diversified agricultural enterprises to acquire permits once they have diversified, and should consider how they will address this when developing tools like this one.

VI. Subdivision Regulations

Overview

After zoning regulations, subdivision bylaws are the second most common land use regulations Vermont municipalities enact. Unlike zoning bylaws, which regulate the type of use and density of development allowed on parcels of land within different areas of the community, subdivision regulations guide the pattern of new development by addressing the way land parcels are divided into separate lots and where roads, driveways and other infrastructure are created within that landscape. By requiring lots to be configured to protect farmland, municipalities can reduce the effects of fragmentation of important agricultural land.

Subdivision Standards²⁴

Subdivision or design standards are applied during the review process to integrate the information on the development proposal with the landowner’s interests and community priorities. Ideally, standards ensure that proposed subdivisions are well designed, promote the orderly development of infrastructure, and mitigate environmental impacts. Subdivision design standards can be used to steer new development or infrastructure away from productive farmland. They

²⁴ From: Haight and Held, *Agriculture in New York: A Toolkit for Towns and Counties*, American Farmland Trust; p. 42. www.farmlandinfo.org/documents/30379/Guide_to_Local_Planning_for_Agriculture_NY.pdf.

Municipal Authority

According to Vermont statutes (Chapter 117 § 4418 (1)), subdivision regulations **shall** contain:

- (A) *Procedures and requirements for the design, submission, and processing of plats, any drawing and plans, and any other documentation required for review of subdivisions.*
- (B) *Standards for the design and layout of streets, sidewalks, curbs, gutters, streetlights, fire hydrants, landscaping, water, sewage and storm-water management facilities, public and private utilities, and other necessary improvements as may be specified in a municipal plan.*
- (C) *Standards for the design and configuration of parcel boundaries and location of associated improvements necessary to implement the municipal plan and achieve the desired settlement pattern for the neighborhood, area, or district in which the subdivision is located.*
- (D) *Standards for the protection of natural resources and cultural features and the preservation of open space, as appropriate in the municipality.*

can also require that measures are taken to prevent future conflicts with nearby farm operations.

Siting New Residences

Subdivision bylaws will help preserve the most productive land for farming by promoting the siting of new building lots away from productive cropland, by locating new houses or other development on the edges, or on less productive soils. By siting structures on the edge of a property, near the public road and existing structures, the development will use the land most efficiently and reduce its footprint on the farmland.

Vermont Subdivision Standards Example: Fletcher

The town of Fletcher, with a growing population of nearly 1,300 year-round residents, is located in southern Franklin County. The town's proximity to Chittenden County has resulted in steady development pressure as families seek affordable housing and a rural setting convenient to nearby employment centers. Consequently, Fletcher has seen the conversion of its farmland to residential development.

In the 1990s, the town planning commission worked closely with the Northwest Regional Planning Commission to prepare a new town plan that established a set of goals aimed at maintaining the town's "rural character".

Because much of the development pressure was occurring in the rural residential/agricultural and conservation districts, the town supplemented the zoning bylaws with subdivision regulations that were drafted to ensure that subdivisions were designed to protect "primary conservation resources" (e.g., floodplain, slopes in excess of 25 percent) and "secondary conservation resources" (e.g., farmland, wildlife habitat).

The subdivision design process requires that subdividers follow three steps: (1) identify primary and secondary conservation resources and establish such areas as open space; (2) identify development areas in locations that avoid impacts on the open space; and (3) identify site improvements (e.g., roads, driveways, utility corridors) necessary to serve the development areas while minimizing the impact on open space. Within the village districts—where development is encouraged—the conservation design process is not required.

From: <http://vnrc.org/resources/community-planning-toolbox/case-studies/subdivision-regulations-fletcher/>

“Additional considerations should be made regarding the proximity of new houses to farm buildings and the proximity of infrastructure (particularly livestock housing) to neighboring properties, given the dominant wind and weather patterns. The thoughtful siting of new homes in areas located upwind from livestock housing or in places screened from prevalent wind patterns can help reduce complaints about the sights, sounds, and smells of nearby farms.

Another design consideration is the location of existing field tiling and ditching. Such infrastructure improvements drain water from farm fields and increase their productivity. New development that interrupts the flow of water from neighboring farm properties may create headaches for neighboring farmers and impact the productivity of their land.”²⁵

Existing field drainage patterns should also be a consideration in the subdivision review criteria, as well as how fields will continue to be accessed from neighboring farm properties. “Subdivisions that site new houses along roadways and leave farmland with restricted access in the back may significantly limit opportunities for the land to be actively used for agriculture. This is an important consideration given the increasing size of commercial farm equipment, which may need wider access routes. Reduced road frontage requirements and road/driveway standards are other design incentives for creatively siting new houses in ways compatible with agriculture.”²⁶

The community could go further to encourage landowners and developers to adopt these design principles by reducing building permit and administrative fees when new houses are creatively sited.

²⁵ Ibid; p. 43, www.farmlandinfo.org/documents/30379/Guide_to_Local_Planning_for_Agriculture_NY.pdf.

²⁶ Ibid, www.farmlandinfo.org/documents/30379/Guide_to_Local_Planning_for_Agriculture_NY.pdf.

However, communities should clearly state their expectations and priorities in subdivision laws so that creative design approaches do not have unintended consequences that still impact the future use of adjoining land for agricultural use. Communities must be sure that the language in their design standards is not ambiguous, but gives landowners and design professionals unequivocal direction and predictability as to the information and results the review board wants to see. Standards that are clear and concise will also benefit the review board by limiting flexibility in interpretation, ensuring consistent decisions, and providing protection against successful court challenges.



This subdivision in Shelburne, Vermont has some shared driveway but still results in carving up farmland as if it didn't matter. Note the mowed area around the homes. Some land may be hayed but a lot has been lost. Photo Credit: © Alex S. MacLean, with permission, from Campoli, Humstone and MacLean, 2002, Above and Beyond, APA.

Location of Roads, Driveways, Trails, Septic Systems and Other Utilities

A key, in devising standards for subdivision review that will encourage the retention of productive farmland, is to include criteria to guide the efficient siting of infrastructure such as utility lines, driveways, and wastewater treatment system components to minimize impact on useable farmland. Utility lines can be buried on less productive land and/or below plow depth. Driveways, like the new lots, can be sited on the edge of farm fields rather than in the middle. Shared driveways should be encouraged to limit the number of roadways that bisect farm fields, and developers welcome requirements that improve efficient use of the land.

Some communities have used subdivision regulations, in tandem with the zoning bylaw, to control building densities and community settlement patterns. This is most effective when the subdivision standards are drafted to correspond to the different land use districts in the community.

For example, standards requiring conservation subdivision design, discussed below, could be used to protect agricultural land and facilitate the clustering of development within a subdivision. Another approach is to separate lot size requirements from density, using any one of a range of techniques mentioned earlier (fixed area base zoning and lot size averaging). Such standards may also be used to protect other assets provided by farmland, such as scenic open land and wildlife habitat. These techniques or tools are discussed further below.

Planned Unit Development²⁷

Most farmers view their land as their retirement fund and need to retain the ability to subdivide and develop a portion of their land for income or for family housing. Planned unit development (PUD) is an approach to zoning and subdivision that provides property owners this flexibility while also ensuring that the patterns of land development protect a community's key agricultural, natural, or open space resources.

PUDs accomplish this by allowing the municipal review board to modify parts of the underlying zoning, such as minimum lot sizes, dimensions and density of development, in order to achieve community goals. These modifications, along with requirements to "cluster" development so that other land is left available for continued use, can help support continued use of agricultural land. (This is in contrast to conventional zoning, which typically requires a certain sized parcel per house and can lead to houses being scattered across a parcel, with little usable land remaining.) Municipalities can require applicants wishing to subdivide land to submit their applications as PUDs. Some towns require PUDs for all subdivisions within certain districts, on parcels of certain size, over a specific number of new lots, or a combination of these. This is specifically authorized in statute, 24 V.S.A. § 4417 (b) (3). Some examples are Charlotte (all major subdivisions and residential subdivisions of any size in certain districts) and Orwell (all major subdivisions in the rural district).

Since the 1970s, PUDs have become a commonly accepted way to preserve working farmland and open space, while also allowing for limited subdivision and clustered residential development. In addition

²⁷ The content in this section is adapted primarily from Vermont Law School Land Use Clinic's *Facilitating Innovative Agricultural Enterprises*, 15-16 (2012).



A new road in Essex Junction, Vermont. Note the width of the new road is much wider than the state highway it accesses, and the spread out homes. Photo Credit: © Alex S. MacLean, with permission, from Campoli, Humstone and MacLean, 2002, Above and Beyond, APA.



A smaller street than the previous photo, serving a more compact neighborhood. Photo Credit: © Alex S. MacLean, with permission, from Campoli, Humstone and MacLean, 2002, Above and Beyond, APA.



This aerial view of St. Albans Town, leading into St. Albans City, shows how subdivision standards and lot sizes have spread out homes over farmland, in contrast to the historic neighborhood pattern in the city. Photo Credit: © Alex S. MacLean, with permission, from Campoli, Humstone and MacLean, 2002, Above and Beyond, APA.

to conserving farmland, PUDs also be used to support agricultural enterprises by including multiple uses within a rural development, including a mixture of agricultural, residential, and business uses.²⁸

A community could, for example, develop a “farm enterprise PUD,” which could incorporate the farm, farm buildings, and a variety of other farm-related uses and structures (e.g., housing, storage, value-added processing, sales, tourism, or educational facilities). A “hamlet PUD” could be included to help support the development of projects that include farming operations as well as clustered housing and services that support the farm.

The town of Waitsfield adopted PUD provisions as an overlay district. This allowed value-added agricultural production, sales, and educational enterprises as accessory uses to adaptive redevelopment of commercial lodging properties (their Adaptive Redevelopment Overlay District) - otherwise, this commercial development would not be allowed in its underlying agricultural-residential district. South Village, a PUD in the City of South Burlington, incorporated agricultural use as an part of the project to address multiple goals: marketing a new age community and providing locally grown food, as well as an innovative way of addressing the protection of primary agricultural soils required by Act 250.²⁹

While general (i.e., not ag-specific) PUDs are fairly common in Vermont, they can be complex to apply for, administer, and enforce. They may impose an additional layer of review in the regulatory process, and PUD standards must be carefully written in order to give the regulating body both flexibility and guidance.³⁰ PUDs can be successfully managed by municipalities with professional staff,

²⁸ Vermont Law School Land Use Clinic, *Facilitating Innovative Agricultural Enterprises*, 15-16 (2012).

²⁹ *Ibid.*

³⁰ *Ibid.*

but may not be suitable for small, rural municipalities with limited administrative capacity.

Another important consideration is that PUDs must be thoughtfully sited in relation to existing settlements and open land, otherwise, they can result in “cluster sprawl.” Encouraging higher density development in rural areas, even if clustered, can lead to suburban-style, auto-dependent patterns of development. With this in mind, communities should consider planning and regulatory solutions that address rural objectives and the protection of contiguous open space broadly so that PUD provisions are not the main tool for achieving an overall pattern of rural agripreneurial development.³¹

Vermont PUD Example: Shelburne

The town of Shelburne allows for mixed-use development, facilitating PUDs. Section 1930.6 of the Shelburne zoning bylaws permits planned unit development-rural mixed use (PUD-RMU) in Shelburne’s rural or conservation zoning districts. The purposes of the PUD-RMU are to protect and preserve “significant landscapes and historic places,” to encourage adaptive reuse of structures, and to ensure that new development is aesthetically and functionally compatible with preserving valuable resources of the area. The criteria for approval that must be met to the Development Review Board’s satisfaction serve to protect farmland (the resource base), but lack a specific mention of agribusiness. Agripreneurial uses, however, are likely not excluded so long as they do not interfere with the existing character and use of the land. This PUD-RMU exemplifies how a municipality can allow for new uses in agricultural districts, without sacrificing protection for rural character and natural resources.

³¹ *Ibid.*

Conservation Subdivisions³²

As mentioned above, typical zoning ordinances prescribe large minimum lot sizes in rural areas—x acres per house—of the community with the intent of keeping open large tracts of land. However, this requirement doesn't lead to subdivision layouts—with their lot lines, roads, and house sites—that will promote continued use of working lands. PUDs, discussed above, offer municipalities and landowners one approach to flexible subdivision design. Another approach, known as conservation subdivisions, was created and promoted nationally by Randall Arendt, a prominent landscape architect, and follows the PUD process to design the subdivision around the site's natural resources, including agricultural land.

According to *Innovative Land Use Techniques: A Handbook for Sustainable Development*, conservation subdivisions cluster buildings so that “the developed lots are typically smaller than the usual minimum lot size and grouped together in one portion of the lot, while the cumulative reductions are compiled in one large lot reserved for open space uses. Some communities require conservation subdivisions to achieve community goals, such as conserving important farmland. Conservation subdivision is often reserved for larger subdivisions but can be used for minor subdivisions as well. This makes it especially helpful for a forest or farm owner who wants to create just a few building lots but leave as much productive acreage as possible.”

The key characteristic of conservation subdivisions is the specific process followed to design the subdivision. It involves prioritizing natural resources for conservation, identifying conservation areas on the parcel in question, and based on this, identifying appropriate areas for development. Only after this is done are the specific building

³² Adapted from *Innovative Land Use Planning Techniques: A Handbook for Sustainable Development*, www.des.nh.gov/organization/divisions/water/wmb/repp

sites, locations of roads, and lot boundaries delineated. “This process contrasts with the traditional subdivision approach of siting new houses and roads first and then identifying key resources that would be protected by a site plan. By identifying key resources first, the conservation subdivision process can be used to site new houses and roads in a manner that minimizes impacts to farmland and other natural resources. Conservation subdivision requirements will be most effective when used with a larger plan for resource conservation and community development.”³³

Density-Based Zoning

There are more techniques for addressing density while protecting land, very similar to each other and related to PUD and Conservation Subdivisions, that go by several monikers: fixed area base zoning, or area-based allocation, which is similar to lot size averaging, also called density zoning. **Varying slightly in how the lots are configured, these tools clearly have a hard time finding a label that will call their attributes easily to mind but are all forms of “density-based zoning”.** Their laudable concept, however, is to separate lot size requirements from building density. Ideally, in a conservation subdivision or rural cluster, a large parcel of land undergoes design and review all at once, with a master plan developed for the property, indicating where roads, buildings, and other infrastructure will be located and where land will remain undeveloped.

But many large landowners aren't prepared or don't want to sell off a large parcel of good farmland at once, or to engage consultants to design a master planned subdivision. These bylaw tools, whichever one is utilized, are a means to address a typical Vermont situation of a large landowner needing to sell off just one lot, or a few at a

³³ Adapted from *Innovative Land Use Planning Techniques: A Handbook for Sustainable Development*, www.des.nh.gov/organization/divisions/water/wmb/repp

Conservation Subdivision Design Process

- 1. Determining a site's "yield":** the maximum legal development potential of the site (for example, based on standard minimum lot sizes).
- 2. Identifying open space and potential development areas,** which may include "primary conservation areas" to be completely avoided (floodplains, wetlands, and steep slopes) and "secondary conservation areas" to be protected (agricultural land, woodlands, viewsheds, wildlife habitat, and stonewalls), as defined in the regulations. Potential development areas consist of the remainder of the site. These should conform to open space areas identified in the community's municipal or open space plans.
- 3. Locating potential house sites** in developable areas, based on the yield calculated under number 1. House sites are arranged to provide physical or visual access to open space areas, while minimizing impacts and encroachments; for example, houses may be located along hedgerows or tree lines that border open fields.
- 4. Locating connecting roads and paths** that connect identified house sites and follow logical alignments that avoid encroaching on open space areas.
- 5. Drawing lot lines** around each house site that exclude designated open space areas, which are maintained in large, unsubdivided tracts.

From "Open Space & Resources Protection Regulations," in Vermont Land Use Planning Implementation Manual found at www.VPIC.info.

time, to help meet expenses, while reserving as much productive acreage as possible. These strategies result in meeting much the same community goals as clustered conservation subdivisions by conserving farm- and forestland for continued use.

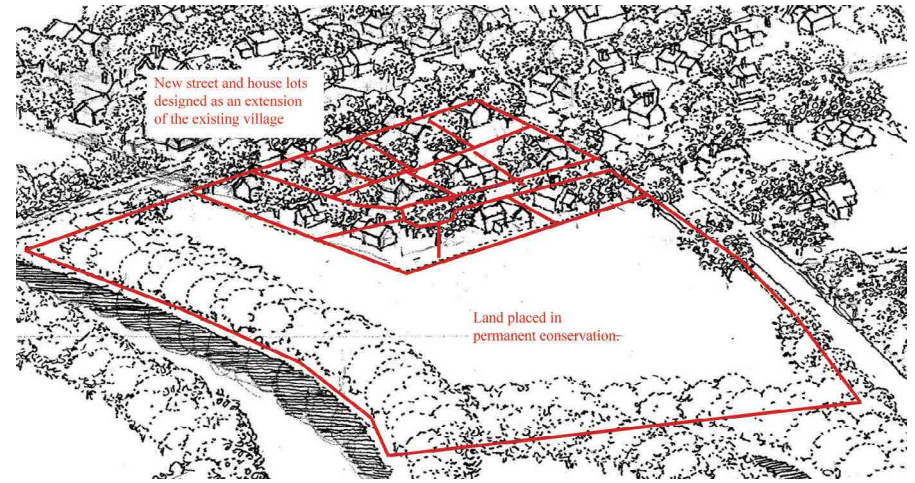


Image from "Open Space & Resources Protection Regulations," in Vermont Land Use Planning Implementation Manual found at www.VPIC.info.

How These Tools Work

For each lot of land subdivided, a smaller building area or lot is designated for development at the same time as the larger proportion of the parcel being delineated for subdivision is conserved. A municipality could use the lot size averaging part of this tool to allow flexible lot sizes, with the intent that the average size of all lots created will meet the minimum required for that district.

For example, for an area of town where the goal is to conserve productive land or primary agricultural soils, the town could set a large minimum lot size of 25 acres. But if the town wanted to avoid carving the landscape into 25-acre parcels, it could use lot size averaging to require that building areas be a maximum of 2 acres, with the further requirement that a deed restriction or an agricultural or conservation easement be placed on the remaining 23-plus acres. The flexibility of lot size averaging further permits the lots to be in a range of sizes, in deference to natural features or workability of the land, as long as the average lot size met the minimum of 25 acres.

Benefits beyond the conservation of productive land include preserving scenic open land and wildlife habitat. If design of future lots allows for the building areas to be juxtaposed, there is potential for additional benefits of a walkable neighborhood, shared infrastructure, and increased affordability.

A major drawback of these tools is that they are difficult to negotiate and manage. Key to their success is the capacity of the municipality to administer them. There is the difficulty of keeping track of the decisions on allocated densities over time. The amount of area conserved with each new subdivision needs to be tracked – both for development and taxation.

In addition, the legal process for negotiating the deed restriction or conservation easements, holding any easements, recording the agreement between the landowner and the community, and providing for enforcement against future development is absolutely necessary, particularly if the landowner proceeds with just one or two lots at a time. A means of clear cross-referencing between the planning commission or development review board and the municipal records needs to be in place.

Expert support from the Vermont Land Trust would be helpful but needs to be secured if it will be relied on for the long term. A local land trust is a possible means if it is staffed, but may not have the capacity to handle the record keeping and enforcement. A local conservation

Vermont Density-Base Zoning Example - Weybridge Zoning Regulations (2005): Section 205, Density-Based Zoning

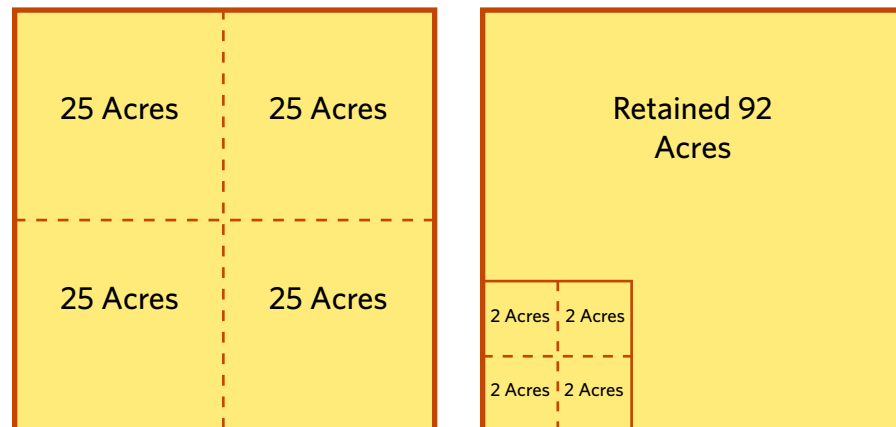
Development consistent with the Town Plan may best be achieved through a flexible land use policy based on density of housing rather than the rigid specification of minimum lot size. Consequently, these zoning regulations specify a maximum housing density in each zoning district, rather than a minimum lot size. Density-based zoning is intended to ensure that development in Weybridge makes the most appropriate and efficient use of land, preserves open space, and proceeds in accordance with the goals of the Town Plan.

Density-based zoning specifies the number of dwelling units allowed per given land area. For example, in the PAR district, one dwelling is allowed per five acres of land. The conventional, five-acre minimum zoning would require that a 20-acre parcel be divided into four equal 5-acre lots. Density-based zoning also allows four dwellings on a 20-acre parcel, but allows the individual lots to be of varied size—e.g., to take best advantage of the terrain, the water-supply, septic possibilities. Furthermore, under density-based zoning, the building lots need not consume all of the land in the available parcel, provided that the remainder of the land is protected from development. Thus, a 20-acre parcel could, for example, be divided into four one-acre building lots and leave a protected 16-acre piece that might continue in productive farm or forest use.

Flexible land development under density-based zoning regulations is best accomplished using the provisions of the PUD, as described in Article III, Section 305. Where development under the density-based criteria calls for the protection of open space from future development, protection may be accomplished by appropriate covenants, by sale of development rights to a land trust, or by other legal means. The means of protection shall be made a part of the town land records of the land in question.

See Table 206.4: Planned Agricultural Residential District (PAR) for dimensional requirements and review process. Available at www.weybridge.govoffice.com.

Figure 1: Fixed Area Base Zoning - Separating Density from Lot Size Requirements



Parcel: 100 acres
 Dwelling Units: 4
 Density: 1 unit/25 acres
 Minimum Lot Size: 25 acres
 Residential Acreage: 100 acres

Parcel: 100 acres
 Dwelling Units: 4
 Density: 1 unit/25 acres
 Maximum Lot Size: 2 acres
 Residential Acreage: 8 acres

Example from “Open Space & Resources Protection Regulations,” in Vermont Land Use Planning Implementation Manual found at www.VPIC.info.

commission is legally enabled to hold easements, but being a volunteer organization with turnover isn’t likely to be able to carry out all the roles required.

Considerations

None of the multiple names for these tools have made them easier to explain. That problem by itself has made it difficult to gain public support to approve the tools as a part of local bylaws. It takes excellent presentation and graphic skills and a trusted local promoter to succeed. Referring to them under the collective name of “density-based zoning” may help.

Since verbal explanations of these tools are often misunderstood, the proposed bylaw should rely on graphics to build recognition of the term applied and help clarify what will be expected. The beauty of the provision is the flexibility and reduction in costs for the landowner to subdivide off a building lot while retaining use of much of the land, but lacking the ability to master plan the full parcel, there is no assurance of community benefits of building areas being clustered together that would come with that planning. Some language should be included in the bylaw to promote discussion of future intentions and those benefits, such as shared driveways, without losing the flexibility for the landowner.

As noted above, this provision for subdivision is tricky to negotiate, to administer, to manage the record keeping long term, and probably to enforce. Its possible benefits—for promoting land conservation even through the smaller subdivisions that cause the majority of land fragmentation in Vermont and for attractive flexibility for the large landowner who doesn’t want to be a developer—appear large. In Vermont, these tools have been applied too seldom and follow-up evaluation has not been done, so it’s overall effectiveness is not well known.

Transfer of Development Rights (TDR) and Non-contiguous PUDs

TDR and non-contiguous PUDs involve the transfer of development rights from one parcel (the “sending area” in the graphic below) to another (receiving area) as shown in the graphic. The approach and mechanics involved in the two tools are different.

TDRs have been promoted as a creative land use tool for decades, to provide landowners in the sending area some monetary value while conserving the agricultural resources for farm use or protecting other natural resource values. The land in the sending area is permanently

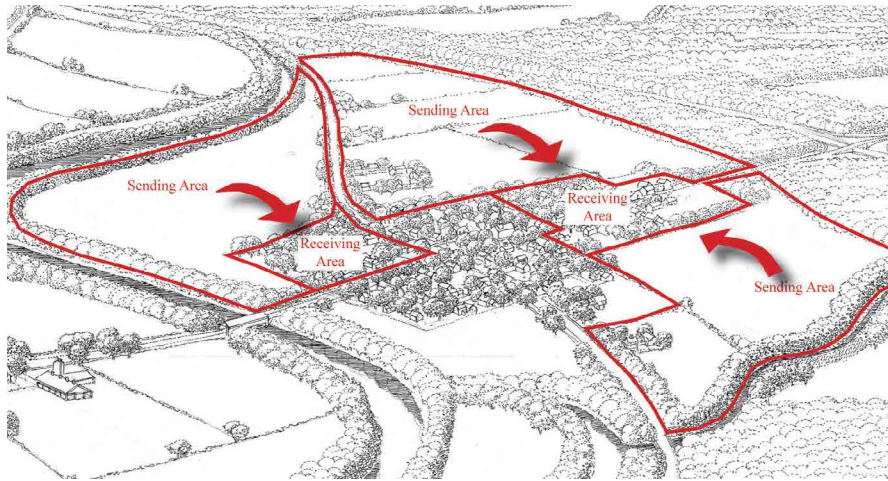


Image from "Transfer of Development Rights," in Vermont Land Use Planning Implementation Manual found at www.VPIC.info.

protected. The developer in the receiving area is allowed a greater density than would have been permitted otherwise and pays the sending area landowner for acquiring the development rights of that land. TDRs have not been adopted broadly across Vermont but some communities have experienced success in its application. Since 2003 that state statute that describes the enabling for municipal land use regulations has included clear guidance on how to set up a local TDR program in 24 V.S.A. § 4423.

Non-contiguous PUDs are different in their use and application from TDRs. PUDs also have specific enabling in state statute (24 V.S.A. § 4417), describing the process and requirements a municipality should include when incorporating the tool in their by-laws, but the concept of "non-contiguous" PUDs is less well known and not described in the statute. Municipalities have flexible enabling, however, to adopt whatever strategies fit the community in implementing its adopted plan goals to protect agricultural resources, and non-contiguous PUDs could be a useful strategy.

Vermont TDR Example: South Burlington

The City of South Burlington has a "Southeast Quadrant (SEQ)" that is its last large area of open land, much of it excellent farmland. In a 2005 re-zoning of the SEQ, a TDR program was included that follows the state statutory guidance closely. While its original goals may have been to protect water and wildlife resources, the program was re-visited by recommendation of a Sustainable Agriculture Committee report and found to line up well with goals to protect prime agricultural soils as a resource as well.

How the South Burlington TDR provision works: both the sending and receiving areas are in the SEQ. The base zoning density throughout the area is 1.2 housing units/acre, regardless whether the land is developable or not (a 12 acre parcel in the sending area could be 90% wetland but the density value in development rights that can be acquired in conserving that land would still be 10 units). The receiving area can have its density increased up to 8 units/acre by acquiring development rights via private negotiation. The owner of the sending area parcel is required to submit a plat to the land records showing the conservation restriction placed on the land as a result of selling those development rights.

Only about a half-dozen such transactions have taken place to the point of being recorded in the land records but it seems to be working well, be understood by the land developers and be a fairly straightforward process. Criticism comes from those gaining increased density in their rural neighborhoods, and concern about landowners receiving payment to conserve land that is not developable, such as wetland or steep slopes.

Source: Interview with Cathyann LaRose, AICP, South Burlington Planner, June 2014.

Vermont PUD Example: Charlotte

Conserving agricultural resources within a PUD parcel, a “contiguous PUD”, would be following the conservation subdivision approach described earlier. The Town of Charlotte is an example of a town using both contiguous and non-contiguous approaches. When a development proposal is brought before the Charlotte Planning Commission during their Sketch Plan Review, the Planning Commission may negotiate for protection of resources within the parcel – a contiguous PUD or conservation subdivision approach. They will, however, entertain any proposal brought before them.

Unlike the TDR approach, there is no proscribed sending area or receiving area in town, and there is still a lot of open farmland. The “non-contiguous PUD” tool allows the flexibility for a developer to offer a conservation easement on important agricultural land anywhere in town. Charlotte has adopted a broad range of tools to protect their agricultural land, including a local conservation fund raised on property taxes, an active local land trust and active work with the Vermont Land Trust. That makes the non-contiguous PUD provision just one more tool to offer among many. Adopted in 2006, it has been used twice to conserve five acre parcels – one of which was agricultural land.

Source: Interview with Jeannine McCrumb, Charlotte Town Planner and Zoning Administrator, July 2014.

Summary³⁴

When regulating the subdivision and development of land to protect agricultural resources, it’s important that:

- 👉 the resources to be protected are clearly identified and defined in the regulations;
- 👉 the areas the tools are applied to conform to those areas defined or identified as key agricultural land in the community’s municipal plan;
- 👉 density standards encourage or require the protection of agricultural land;
- 👉 development standards, including siting and clustering standards, minimize the impact of development on identified agricultural land;
- 👉 standards include legal restrictions and requirements for the long-term protection and sustainable management of productive farm use of the land; and
- 👉 the municipality sets up adequate record-keeping systems to track privately and publicly conserved land.

³⁴ From “Open Space & Resource Protection Regulations,” in *Vermont Land Use Planning Implementation Manual*, 19-10.

VII. Resources

Cloud, Dominic, and Brian Monaghan, *Essentials of Land Use Planning and Regulations*, Vermont Land Use Education and Training Collaborative, Montpelier: DHCA, May 2007.

Haight, David, Jerry Cosgrove, and Kirsten Ferguson, *Guide to Local Planning for Agriculture in New York*, Saratoga Springs, NY: American Farmland Trust, 2011, www.farmlandinfo.org/documents/30379/Guide_to_Local_Planning_for_Agriculture_NY.pdf.

Haight, David, and Diane Held, *Agriculture in New York: A Toolkit for Towns and Counties*, Saratoga Springs, NY: American Farmland Trust, 2011, <http://www.farmland.org/documents/PlanningforAgriculturePDF.pdf>.

Vermont Land Use Education & Training Collaborative, “Open Space & Resource Protection Regulations,” In Vermont Land Use Planning Implementation Manual, 19-7, 19-8, April 2007, www.vpic.info/ImplementationManual.html.

New Hampshire Department of Environmental Services et al., *Innovative Land Use Techniques: A Handbook for Sustainable Development*, Concord: NH Department of Environmental Services, October 2008, http://des.nh.gov/organization/divisions/water/wmb/repp/documents/ilupt_complete_handbook.pdf.

Vermont Law School Land Use Clinic, *Facilitating Innovative Agricultural Enterprises: Considerations and Example Language for Vermont Municipalities*, 2012, <http://site.vermontplanners.org/resources/vpa-publications>.

Vermont Natural Resources Council, *Community Planning Toolbox*: <http://vnrc.org/resources/community-planning-toolbox>;