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The Fixed-Ratio Zoning Approach for Protecting Agricultural Lands April 28, 2004

To better protect agricultural lands from over-development, some communities have turned away from the traditional zoning approach of setting very large minimum required lot sizes. Experience has shown that setting high lot size minimums of 5 acres, 10, acres, 20 acres or more as a means of protecting agricultural land from development has generally not worked. Farms have simply been carved up into lots that "are too big to mow and too small to farm."

An approached pioneered by rural agricultural townships in southeastern Pennsylvania is to limit residential development by limiting the number of land subdivisions allowed, and placing a maximum lot size cap on land sold for non-agricultural residential use in addition to the traditional minimum lot size. The minimum lot size is usually set by the capacity of local soils to safely accommodate on-lot septic disposal systems. The maximum allowable lot size for non-agricultural residential lots is usually two or three acres.

How does the system work? First the number of permissible subdivisions for non-agricultural development is established in the zoning district regulations: one lot per 7 acres of land, 10 acres, 20 acres of land, etc. If, for example, a farm tract contained 125 acres of land, and the permissible number of non-agricultural lots was set at 1 per 7 acres, then the landowner would be allowed to subdivide off up to 17 non-agricultural lots. (125 / 7 = 17.86 lots, rounded down to 17 lots.) If the permissible number of non-agricultural lots were set at 1 per 10 acres, then the landowner would be allowed to subdivide off up to 12 non-agricultural lots. (125 / 10 = 12.5 lots, rounded down to 12 lots.) If the permissible number of non-agricultural lots were set at 1 per 20 acres, then the landowner would be allowed to subdivide off up to 6 non-agricultural lots. (125 / 20 = 6.25 lots, rounded down to 6 lots.)

If the zoning district regulations allow a maximum lot size of three acres for non-agricultural lots, then there could be up to sixteen 1.5- to 3-acre residential lots created under the first scenario (1:7) with between 74 and 101 acres of land remaining for agricultural use; twelve 1.5- to 3-acre residential lots under the second scenario (1:10) with 89 to 107 acres of farmland remaining; and 5 residential lots under the third scenario (1:20) with 110 to 117 acres of farmland remaining.

It is likely however that the farmland owner would first subdivide off land that is less valuable for farming, such as woodland or brush land, and also minimize the size of the new lots wherever possible. Thus the amount of higher quality, actively farmed land lost through this approach would likely be less than the maximum amounts shown above.

This approach requires a re-thinking of how zoning density is express. The "...minimum lot size shall be 10 acres..." language is replaced by "...number of lots per 10 acres...;" and an upper limit on the size of residential lots is generally set at 2 acres or 3 acres.

The fixed ratio approach has proven both successful in preserving agricultural lands and easy for rural townships with limited staffs and lay boards to implement. Generally at the adoption of a zoning ordinance all parcels subject to the new regulations are identified on a map, and for each parcel the total acreage at the time of adoption of the new regulations and the number of permitted subdivisions are recorded. As subdivisions are approved the map is updated. This allows for easy tracking of land subdivisions and the number of potential lots available to current and prospective landowners.

The attached map illustrates how a 1:10 fixed-ratio approach could work about a sample area encompassing about 1.5 square miles of agricultural lands

